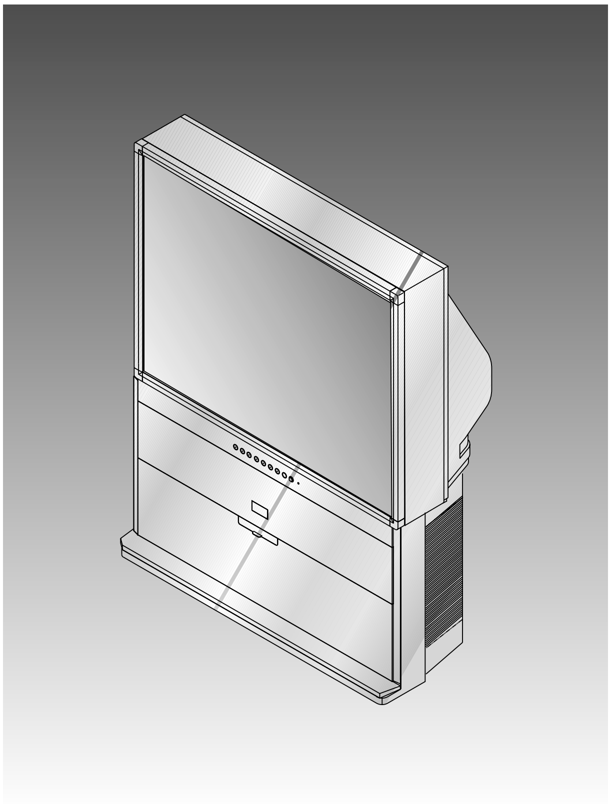
PROJECTION TV RECEIVER

Chassis : J54A(P)C1.5
Model: SP43T8HPX/BOB

SERVICE Manual

PROJECTION TV RECEIVER



CONTENTS

1. Precautions

Follow these safety, servicing and ESD precautions to prevent damage and protect against potential hazards such as electrical shock and X-rays.

1-1 Safety Precautions

1. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.

2. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.

3. Make sure that there are no cabinet openings through which people—particularly children—might insert fingers and contact dangerous voltages. Such openings include the spacing between the picture tube and the cabinet mask, excessively wide cabinet ventilation slots, and improperly fitted back covers.

   If the measured resistance is less than 1.0 megohm or greater than 5.2 megohms, an abnormality exists that must be corrected before the unit is returned to the customer.

4. Leakage Current Hot Check (Figure 1-1):
   Warning: Do not use an isolation transformer during this test. Use a leakage-current tester or a metering system that complies with American National Standards Institute (ANIS C101.1, Leakage Current for Appliances), and Underwriters Laboratories (UL Publication UL1410, 59.7).

5. With the unit completely reassembled, plug the AC line cord directly into the power outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: antennas, handle brackets, metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

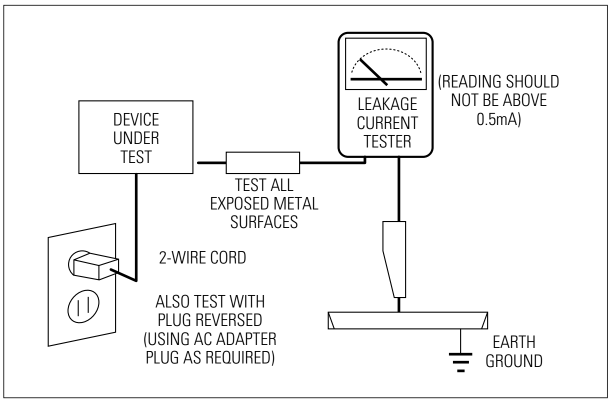


Fig. 1-1 AC Leakage Test

6. Antenna Cold Check:
   With the unit's AC plug disconnected from the AC source, connect an electrical jumper across the two AC prongs. Connect one lead of the ohmmeter to an AC prong. Connect the other lead to the coaxial connector.

7. X-ray Limits:
   The picture tube is especially designed to prohibit X-ray emissions. To ensure continued X-ray protection, replace the picture tube only with one that is the same type as the original. Carefully reinstall the picture tube shields and mounting hardware; these also provide X-ray protection.

8. High Voltage Limits:
   High voltage must be measured each time servicing is done on the B+, horizontal deflection or high voltage circuits. Correct operation of the X-ray protection circuits must be reconfirmed whenever they are serviced. (X-ray protection circuits also may be called "horizontal disable" or "hold-down".)

   Heed the high voltage limits. These include the X–ray Protection Specifications Label, and the Product Safety and X-ray Warning Note on the service data schematic.

1-1 Safety Precautions (Continued)

9. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.

10. Design Alteration Warning:
Never alter or add to the mechanical or electrical design of this unit. Example: Do not add auxiliary audio or video connectors. Such alterations might create a safety hazard. Also, any design changes or additions will void the manufacturer's warranty.

11. Hot Chassis Warning:
Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord. If an isolation transformer is not used, these units may be safely serviced only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC source.

    To confirm that the AC power plug is inserted correctly, do the following: Using an AC voltmeter, measure the voltage between the chassis and a known earth ground. If the reading is greater than 1.0V, remove the AC power plug, reverse its polarity and reinsert. Re-measure the voltage between the chassis and ground.

12. Some TV chassis are designed to operate with 85 volts AC between chassis and ground, regardless of the AC plug polarity. These units can be safely serviced only if an isolation transformer inserted between the receiver and the power source.

13. Some TV chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

14. Components, parts and wiring that appear to have overheated or that are otherwise damaged should be replaced with parts that meet the original specifications. Always determine the cause of damage or overheating, and correct any potential hazards.

15. Observe the original lead dress, especially near the following areas: Antenna wiring, sharp edges, and especially the AC and high voltage power supplies. Always inspect for pinched, out-of-place, or frayed wiring. Do not change the spacing between components and the printed circuit board. Check the AC power cord for damage. Make sure that leads and components do not touch thermally hot parts.

16. Picture Tube Implosion Warning:
The picture tube in this receiver employs "integral implosion" protection. To ensure continued implosion protection, make sure that the replacement picture tube is the same as the original.

17. Do not remove, install or handle the picture tube without first putting on shatterproof goggles equipped with side shields. Never handle the picture tube by its neck. Some "in-line" picture tubes are equipped with a permanently attached deflection yoke; do not try to remove such "permanently attached" yokes from the picture tube.

18. Product Safety Notice:
Some electrical and mechanical parts have special safety-related characteristics which might not be obvious from visual inspection. These safety features and the protection they give might be lost if the replacement component differs from the original—even if the replacement is rated for higher voltage, wattage, etc.

    Components that are critical for safety are indicated in the circuit diagram by shading, (⚠) or (⚠).
    Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications.
    A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

1-2 Servicing Precautions

Warning 1 : First read the "Safety Precautions" section of this manual. If some unforeseen circumstance creates a conflict between the servicing and safety precautions, always follow the safety precautions.
Warning 2 : An electrolytic capacitor installed with the wrong polarity might explode.

1. Servicing precautions are printed on the cabinet. Follow them.

2. Always unplug the unit's AC power cord from the AC power source before attempting to: (a) Remove or reinstall any component or assembly, (b) Disconnect an electrical plug or connector, (c) Connect a test component in parallel with an electrolytic capacitor.

3. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.

4. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the portion around the serviced part has not been damaged.

5. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).

6. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500V) to the blades of the AC plug.

   The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.

7. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.

8. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

9. When some parts inside the optical engine (except lamp) are damaged, replace the whole optical engine.

1-3 Precautions for Electrostatically Sensitive Devices (ESDs)

1. Some semiconductor (“solid state”) devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs); examples include integrated circuits and some field-effect transistors. The following techniques will reduce the occurrence of component damage caused by static electricity.

2. Immediately before handling any semicon ductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. (Be sure to remove it prior to applying power—this is an electric shock precaution.)

3. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of electrostatic charge.

4. Do not use freon-propelled chemicals. These can generate electrical charges that damage ESDs.

5. Use only a grounded-tip soldering iron when soldering or unsoldering ESDs.

6. Use only an anti-static solder removal device. Many solder removal devices are not rated as “anti-static”; these can accumulate sufficient electrical charge to damage ESDs.

7. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.

8. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.

9. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting a foot from a carpeted floor can generate enough static electricity to damage an ESD.

2. Reference Information

2-1 Tables of Abbreviations and Acronyms

Table 2-1 Abbreviations

Abbreviation	Meaning	Abbreviation	Meaning
A	Ampere	MV	Megavolt
Ah	Ampere-hour	MW	Megawatt
Å	Angstrom	MΩ	Megohm
dB	Decibel	m	Meter
dBm	Decibel Referenced to One Milliwatt	µA	Microampere
		µF	Microfarad
°C	Degree Celsius	µH	Microhenry
°F	Degree Fahrenheit	µm	Micrometer
°K	degree Kelvin	µs	Microsecond
F	Farad	µW	Microwatt
G	Gauss	mA	Milliampere
GHz	Gigahertz	mg	Milligram
g	Gram	mH	Millihenry
H	Henry	ml	Milliliter
Hz	Hertz	mm	Millimeter
h	Hour	ms	Millisecond
ips	Inches Per Second	mV	Millivolt
kWh	Kilowatt-hour	nF	Nanofarad
kg	Kilogram	Ω	Ohm
kHz	Kilohertz	pF	Picofarad
kΩ	Kilohm	lb	Pound
km	Kilometer	rpm	Revolutions Per Minute
km/h	Kilometer Per Hour	rps	Revolutions Per Second
kV	Kilovolt	s	Second (Time)
kVA	Kilovolt-ampere	V	Volt
kW	Kilowatt	VA	Volt-ampere
l	Liter	W	Watt
MHz	Megahertz	Wh	Watt-hour

Table 2-2 Table of Acronyms

Acronym	Meaning
ABL	Automatic Brightness Limiter
AC	Alternating Current
ACC	Automatic Chroma Control
AF	Audio Frequency
AFC	Automatic Frequency Control
AFT	Automatic Fine Tuning
AGC	Automatic Gain Control
AM	Amplitude Modulation
ANSI	American National Standards Institute
APC	Automatic Phase Control
APC	Automatic Picture Control
A/V	Audio-Video
AVC	Automatic Volume Control
BAL	Balance
BPF	Bandpass Filter
B-Y	Blue-Y
CATV	Community Antenna Television (Cable TV)
CB	Citizens Band
CCD	Charge Coupled Device
CCTV	Closed Circuit Television
Ch	Channel
CRT	Cathode Ray Tube
CW	Continuous Wave
DC	Direct Current
DVM	Digital Volt Meter
EIA	Electronics Industries Association
ESD	Electrostatic Discharge
ESD	Electrostatically Sensitive Device
FBP	Feedback Pulse
FBT	Flyback Transformer
FF	Flip-Flop
FM	Frequency Modulation
FS	Fail Safe
GND	Ground
G-Y	Green-Y
H	High
HF	High-Frequency
HI-FI	High Fidelity
IC	Inductance-Capacitance
IC	Integrated Circuit
IF	Intermediate Frequency
I/O	Input/output
L	Left
L	Low
LED	Light Emitting Diode
LF	Low Frequency
MOSFET	Metal-Oxide-Semiconductor-Field-Effect-Tr
MTS	Multi-channel Television Sound
NAB	National Association of Broadcasters
NEC	National Electric Code
NTSC	National Television Systems Committee
OSD	On Screen Display
PCB	Printed Circuit Board
PLL	Phase-Locked Loop
PWM	Pulse Width Modulation
QIF	Quadrature Intermediate Frequency
R	Right
RC	Resistor & Capacitor
RF	Radio Frequency
R-Y	Red-Y
SAP	Second Audio Program
SAW	Surface Acoustic Wave(Filter)
SIF	Sound Intermediate Frequency
SMPS	Switching Mode Power Supply
S/N	Signal/Noise
SW	Switch
TP	Test Point
TTL	Transistor Transistor Logic
TV	Television
UHF	Ultra High Frequency
UL	Underwriters Laboratories
UV	Ultraviolet
VCD	Variable-Capacitance Diode
VCO	Voltage Controlled Oscillator
VCXO	Voltage Controlled Crystal Oscillator
VHF	Very High Frequency
VIF	Video Intermediate Frequency
VR	Variable Resistor
VTR	Video Tape Recorder
VTVM	Vacuum Tube Voltmeter
TR	Transistor

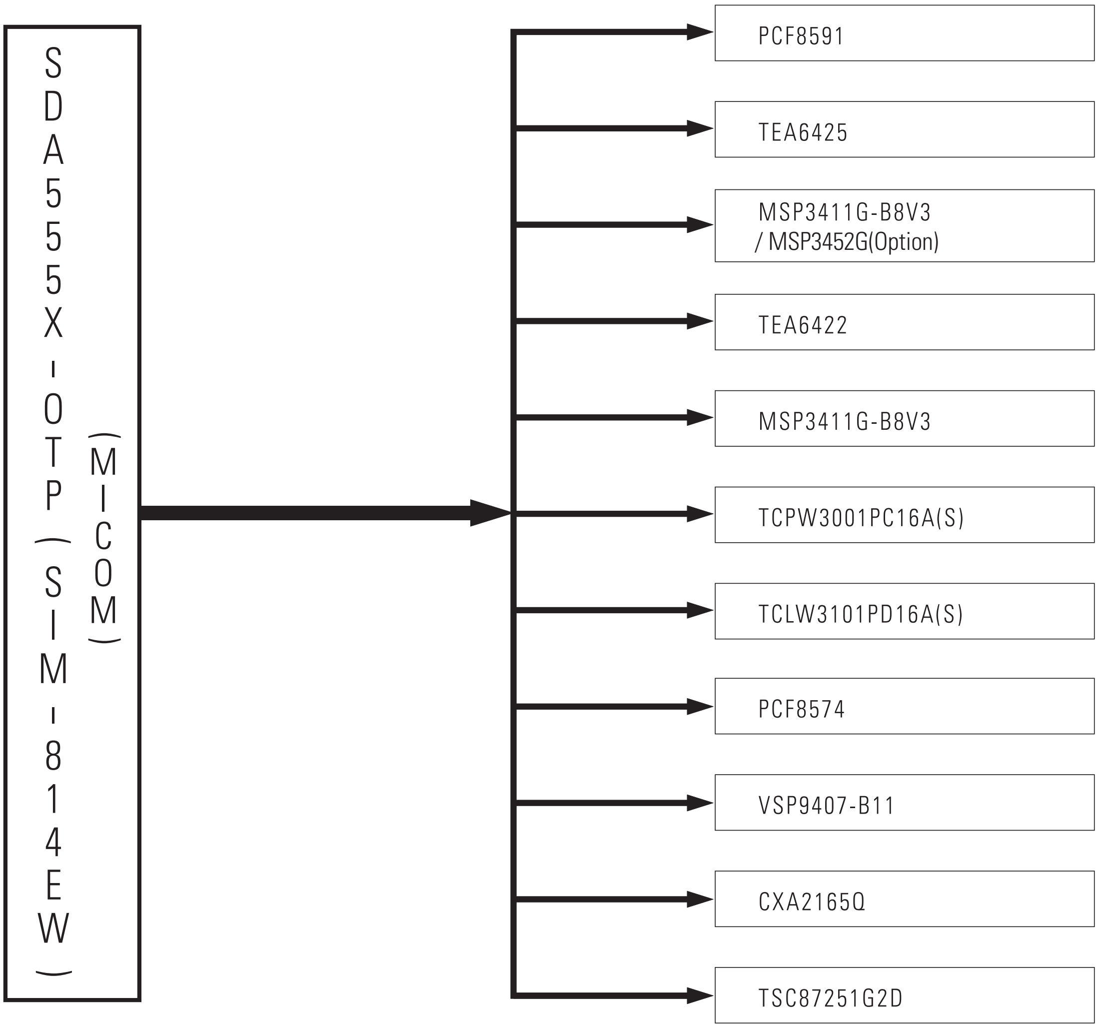
2-2 IC Line Up

Table 2 - 3 IC Line - Up

No.	Block Name	IC Location	IC Name
1	MAIN	IC703	TEA5114A
		IC802	7905
		IC101	PCF8574
		IC701	TEA6425D
		IC702	TEA6425D
		IC605	TEA6422D
		IC704	PCF8591T
		IC705	PCF8591T
		IC602	MSP3411G-QA-B8V3/MSP3452G(Option)
2	SCALER MODULE	IC13	74HC123
		IC06	7027
		IC05	LF18CDT
		IC11	78RM33D
		IC01A	VSP9407B-B11
		IC04	CXA2165Q
3	CG MODULE	IC08	74HC4052
		IC13	NC7SB3157P6X
		IC05	24C64
		IC07	EL2250CS
		C03	7042
		IC02	78RM33D
		IC17	TLC2932IPWLE
		IC06	TSC87251G2D-OTP
		IC01	SDC12
		IC09, IC10, IC11,IC14	TL072C
		IC12	KA324D
		IC04, IC15, IC16	7S04

Table 2 - 3 IC Line - Up (Continued)			
No.	Block Name	IC Location	IC Name
4	MICOM MODULE	IC902	24C16
		IC903	78RM33D
		IC901	SDA5550M
		IC904	7025
		IC905	M27W201-80F6
5	SUB	IC431, IC471	MC4558C
		IC841	78R05
		IC851	SE110N
		ICS801	VIPER12A
		IC402	DDRI1001
		ICZ03, ICZ04	STK392-010
		IC831S	STR-X6459A
		IC301	LA7845

2-3 MICOM IIC BUS LINE -UP



MENO

3. Specifications

<table>
<tr><td rowspan="2">Broadcasting System</td><td>CW : EURO Multi (PAL, SECAM-B/G, D/K, I, L/L)</td></tr>
<tr><td>CS : PAL Multi (PAL, SECAM-B/G, D/K, I, NT4, 43, NT3.58)</td></tr>
<tr><td>Scanning System</td><td>100Hz / Progressive</td></tr>
<tr><td rowspan="3">Tuning Range</td><td>VHF : CH2 ~ CH12</td></tr>
<tr><td>UHF : CH21 ~ CH69</td></tr>
<tr><td>Cable : CHS1 ~ S40</td></tr>
<tr><td>Antenna Impedance</td><td>75 ohm Unbalanced</td></tr>
<tr><td>Intermediate Frequency</td><td><table><tr><td>System</td><td>Video(MHz)</td><td>Sound(MHz)</td></tr><tr><td>B/G</td><td>38.90</td><td>33.40</td></tr><tr><td>D/K</td><td>38.90</td><td>32.40</td></tr><tr><td>I</td><td>38.90</td><td>32.90</td></tr><tr><td>L(L')</td><td>34.5(41.0)</td><td>41.0(34.5)</td></tr></table></td></tr>
<tr><td>Sound Output</td><td>MAX : 15W x 2 (8ohm)</td></tr>
<tr><td>Rated Voltage</td><td>AC220V / Free Voltage (Option)</td></tr>
<tr><td>High Voltage</td><td>29KV</td></tr>
<tr><td rowspan="2">FUSE</td><td>250V/6.3A</td></tr>
<tr><td>CODE NO : 3601-000300</td></tr>
<tr><td>Power Consumption</td><td>230W</td></tr>
</table>

❑ White Balance (Southeast Asia)

Fixed

ITEM	42W5			47W1			43T6/43T7			48T6			42W5			42W5		
	x	y	Y	x	y	Y	x	y	Y	x	y	Y	x	y	Y	x	y	Y
HIGHT	290	304	10.5	290	304	9.5	290	304	10	290	304	9.5	290	304	8.5	290	304	6.5
LOW	258	254	0.45	258	254	0.35	258	254	0.4	258	254	0.4	258	254	0.35	258	254	0.35
R-CUT OFF	15			16			15			17			16			12		
G-CUT OFF	20			20			20			20			20			20		
B-CUT OFF	21			26			23			32			29			35		
R-DRIVE	42			48			41			54			46			41		
G-DRIVE	31			31			31			31			31			31		
B-DRIVE	16			28			26			21			25			15		
SUB-BRIGHT	6			10			7			7			8			9		
SUB-CONTRAST	12			4			13			6			11			11		
SUB COLOR	15			15			15			15			15			15		
COL AXIS	2			2			2			2			2			2		

❑ White Balance (Australia)

ITEM	42W5			47W1			43T6/43T7			48T6			42W5			42W5		
	x	y	Y	x	y	Y	x	y	Y	x	y	Y	x	y	Y	x	y	Y
HIGHT	290	304	10.5	290	304	9.5	290	304	10	290	304	9.5	290	304	8.5	290	304	6.5
LOW	290	290	0.45	290	290	0.35	590	290	0.4	290	290	0.4	290	290	0.35	290	290	0.35
R-CUT OFF	21			22			22			22			22			19		
G-CUT OFF	20			20			20			20			20			20		
B-CUT OFF	21			23			21			25			22			23		
R-DRIVE	35			38			36			45			41			32		
G-DRIVE	31			31			31			31			31			31		
B-DRIVE	20			25			26			24			29			17		
SUB-BRIGHT	8			9			8			5			7			15		
SUB-CONTRAST	10			6			13			8			10			11		
SUB COLOR	10			10			10			10			10			10		
COL AXIS	1			1			1			1			1			1		

4. Alignment and Adjustments

4-1 When entering the service mode;

1. Turn on the TV, and then select “DYNAMIC” on the picture adjustment mode.
2. Turn off the TV(STAND-BY).
3. Enter the service mode by pressing the remote control keys in the following sequence:
   Display -> Menu -> Mute -> Power ON

Note : If necessary, re-do steps 1~3.

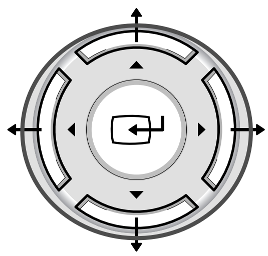
Initial display when the service mode is switched.

4-1-1 WHEN A RF SIGNAL IS RECEIVED

CW MODEL	CS MODEL
DEFLECTION	DEFLECTION
VIDEO ADJUST 1	VIDEO ADJUST 1
VIDEO ADJUST 2	VIDEO ADJUST 2
VIDEO ADJUST 3	VIDEO ADJUST 3
VIDEO ADJUST 4	VIDEO ADJUST 4
OPTION (87h 05ch)	OPTION (D8 O4 2E)
YC DELAY	YC DELAY
RESET	RESET
SIM-814EW YY.MM.DD	T_CADEC_010 YY.MM.DD

4-1-2 SERVICE MODE CONTROL KEYS

MAIN MENU	MENU DISPLAY
UP / DOWN	Select item by moving cursor
RIGHT / LEFT	Decrease or increase the adjustment values



[Navigation Key]

✍ **PRECAUTIONS**

1. When EEPROM IC (IC902) is replaced, first connect the power cord and wait for about 4~5 seconds.
2. After replacing EEPROM IC (IC902), enter the Service mode. Next, enter the standard data or the previous EEPROM IC data before replacement. And then check and adjust any items related to Geometric, Picture, Option.

4-2 FACTORY MODE MENU

4-2-1 CW MODEL(SIM-814EW)

4-2-1(A) DEFLECTION

Item	Range	Initial Data	Remark
V Amp	0 ~ 63	39	Variable
V Shift	0 ~ 63	32	FIX
H EW	0 ~ 63	41	Variable
H Shift	0 ~ 63	24	FIX
V Linearity	0 ~ 15	7	FIX
Upper Linearity	0 ~ 15	0	FIX
Lower Linearity	0 ~ 15	0	FIX
V SC	0 ~ 15	7	FIX
H Parabolra	0 ~ 63	29	FIX
Upper Corner	0 ~ 63	36	FIX
Lower Corner	0 ~ 63	34	FIX
H Trapezium	0 ~ 63	21	FIX
Bow	0 ~ 63	31	FIX
Angle	0 ~ 63	31	FIX
V Position	0 ~ 63	31	FIX
Up UCG	0 ~ 3	0	FIX
Lo UCG	0 ~ 3	0	FIX
CXA Left Blk	0 ~ 63	50	FIX
CXA Right Blk	0 ~ 63	25	FIX

4-2-1(B) VIDEO ADJUST1

Item	Range	Initial Data	Remark
R Cutoff	0 ~ 63	25	Variable
G Cutoff	0 ~ 63	25	FIX
B Cutoff	0 ~ 63	25	Variable
Color On/Off	0 ~ 1	1	Variable
CB Offset	0 ~ 63	31	Variable
CR Offset	0 ~ 63	31	Variable
R Drive	0 ~ 63	25	Variable
G Drive	0 ~ 63	25	FIX
B Drive	0 ~ 63	25	Variable
Sub Bright	0 ~ 63	15	Variable
Sub Contrast	0 ~ 15	8	Variable
Sub Color	0 ~ 23	3	FIX
Sut Tint	0 ~ 63	31	FIX
CTI Level	0 ~ 3	1	FIX
COL Axis	0 ~ 3	1	FIX
LTI Level	0 ~ 3	1	FIX
VSU	0 ~ 15	2	FIX
Melody Volume	0 ~ 20	4	FIX
LIT Mode	0 ~ 3	1	FIX
System	0 ~ 3	1	FIX

4-2-1(C) VIDEO ADJUST2

Item	Range	Initial Data	Remark
ABL Level	0 ~ 3	3	FIX
Gamma	0 ~ 3	1	FIX
DPIC Level	0 ~ 3	2	-
DC Trans	0 ~ 3	1	FIX
ABL TH	0 ~ 15	15	FIX
VM Level	0 ~ 3	1	-
VM Corint	0 ~ 15	0	FIX
VM f0	0 ~ 3	1	FIX
VM Limit	0 ~ 3	1	FIX
VM Delay	0 ~ 3	1	FIX
SHP CD	0 ~ 3	0	FIX
SHP f0	0 / 1	1	FIX
SHP f1 & P/O	-	11	FIX
AKB Time	0 ~ 63	13	FIX
BandPass 9407	-	24	-
HighPass 9407	-	40	-
S ABL	0 ~ 3	0	FIX
P ABL	0 ~ 15	15	FIX

4-2-1(D) VIDEO ADJUST3

Item	Range	Initial Data	Remark
H Comp	0 ~ 15	1	FIX
V Comp	0 ~ 15	4	
Pin Comp	0 ~ 7	3	
AFC Comp	0 ~ 7	0	
H-Sync Phase	0 / 1	0	
NR Off Value	0 ~ 9	6	
CG HAO	0 ~ 20	10	
CG VAO	0 ~ 20	15	
NR High Ref	0 ~127	40	
NR Low Ref	0 ~127	3	
NR High Value	0 ~255	17	
NR Low Value	0 ~255	51	
NR Hight Ref(S)	0 ~127	20	
NR Low Ref(s)	0 ~127	0	
NR High Value(S)	0 ~255	17	
NR Low Value(S)	0 ~255	51	
NR Read M/S	0/27	0 0	

4-2-1(E) VIDEO ADJUST4

Item	Range	Initial Data	Remark
SECAM Color Main	0 ~255	28	FIX
SECAM Color Pip	0 ~255	28	
Picture Limit	0 ~ 3	3	
OSD Contrast	0 ~ 15	10	
TTX Contrast	0 ~ 15	3	

4-2-1(F) OPTION

Item	Setting Data	Appliance	Remark
SYSTEM	CS/CW	CW	
SOUND	A2-NICAM/Virtual Dolby	Virtual Dolby	
ASPECT	WIDE / 4:3	WIDE	
WIDE 4:3	OFF / ON	on	
X-RAY	OFF / ON	ON	
AUTO FM	OFF / ON	ON	
PIP	OFF / 2-TUNER	2-TUNER	
LNA	OFF / ON	On	
Letter Box	OFF / ON	ON	
D/W PIP	OFF / ON	OFF	
AGC	OFF / ON	OFF	
Natural Zoom	OFF / ON	ON	
HELP	OFF / ON	ON	

4-2-1(G) YC DELAY

Item	Range
P.YC(AV) Delay	1
S.YC(AV) Delay	-5
N.YC(AV) Delay	1
P.BG.YC Dealy	1
P.DK.YC Delay	-2
P.I.YC Delay	0
P.M.YC Delay	0
P.N.YC Delay	0
S.BG.YC Delay	-7
S.DK.YC Delay	-9
S.I.YC Delay	-9
S.M.YC Delay	-7
S.L.YC Delay	-10
N.M.YC Delay	3
N4.43 YC Delay	-6

4-2-2 CS MODEL(T_CADEC_010)

4-2-2(A) DEFLECTION

Item	Range	Initial Data												Remark
		42W5		47W1		43T6/43T7		48T6		54T6		62T6		
		NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	
V Amp	0 ~ 63	48	48	48	48	48	48	48	48	48	48	48	48	Variable
V Shift	0 ~ 63	31	31	31	31	31	31	31	31	31	31	31	31	FIX
H EW	0 ~ 63	48	48	48	48	48	48	48	48	48	48	48	48	Variable
H Shift	0 ~ 63	24	24	24	24	24	24	24	24	24	24	24	24	FIX
V Linearity	0 ~ 15	7		7		7		7		7		7		FIX
Upper Linearity	0 ~ 15	0		0		0		0		0		0		FIX
Lower Linearity	0 ~ 15	0		0		0		0		0		0		FIX
V SC	0 ~ 15	2		2		2		2		2		2		FIX
H Parabolra	0 ~ 63	15		15		15		15		15		15		FIX
Upper Corner	0 ~ 63	33		33		33		33		33		33		FIX
Lower Corner	0 ~ 63	33		33		33		33		33		33		FIX
H Trapezium	0 ~ 63	18		18		18		18		18		18		FIX
Bow	0 ~ 63	31		31		31		31		31		31		FIX
Angle	0 ~ 63	31		31		31		31		31		31		FIX
V Position	0 ~ 63	31		31		31		31		31		31		FIX
Up UCG	0 ~ 3	0		0		0		0		0		0		FIX
Lo UCG	0 ~ 3	0		0		0		0		0		0		FIX
CXA Left Blk	0 ~ 63	50		50		50		50		50		50		FIX
CXA Right Blk	0 ~ 63	25		25		25		25		25		25		FIX

4-2-2(B) VIDEO ADJUST1

Item	Range	Initial Data	Remark
R Cutoff	0 ~ 63	25	Variable
G Cutoff	0 ~ 63	25	Variable
B Cutoff	0 ~ 63	25	Variable
Color On/Off	0 ~ 1	1	Variable
CB Offset	0 ~ 63	31	Variable
CR Offset	0 ~ 63	31	Variable
R Drive	0 ~ 63	25	Variable
G Drive	0 ~ 63	25	Variable
B Drive	0 ~ 63	25	Variable
Sub Bright	0 ~ 63	15	Variable
Sub Contrast	0 ~ 15	8	Variable
Sub Color	0 ~ 23	3	FIX
Sut Tint	0 ~ 63	31	FIX
CTI Level	0 ~ 3	1	FIX
COL Axis	0 ~ 3	2	FIX
LTI Level	0 ~ 3	1	FIX
VSU	0 ~ 15	2	FIX
Melody Volume	0 ~ 20	4	FIX
LIT Mode	0 ~ 3	1	FIX
System	0 ~ 3	1	FIX

4-2-2(C) VIDEO ADJUST2

Item	Range	Initial Data	Remark
ABL Level	0 ~ 3	3	FIX
Gamma	0 ~ 3	1	FIX
DPIC Level	0 ~ 3	2	FIX
DC Trans	0 ~ 3	1	FIX
ABL TH	0 ~ 15	15	FIX
VM Level	0 ~ 3	1	FIX
VM Corint	0 ~ 15	0	FIX
VM f0	0 ~ 3	1	FIX
VM Limit	0 ~ 3	1	FIX
VM Delay	0 ~ 3	1	FIX
SHP CD	0 ~ 3	0	FIX
SHP f0	0 / 1	1	FIX
SHP f1 & P/O	-	11	FIX
AKB Time	0 ~ 63	13	FIX
BandPass 9407	-	24	FIX
HighPass 9407	-	40	FIX
S ABL	0 ~ 3	0	FIX
P ABL	0 ~ 15	15	FIX

4-2-2(D) VIDEO ADJUST3

Item	Range	Initial Data	Remark
H Comp	0 ~ 15	1	FIX
V Comp	0 ~ 15	4	
Pin Comp	0 ~ 7	3	
AFC Comp	0 ~ 7	0	
H-Sync Phase	0 / 1	0	
NR Off Value	-	6	
CG HAO	0 ~ 20	10	
CG VAO	0 ~ 20	15	
NR High Ref	0 ~127	40	
NR Low Ref	0 ~127	3	
NR High Value	-	17	
NR Low Value	-	51	
NR Hight Ref(S)	0 ~127	20	
NR Low Ref(s)	0 ~127	0	
NR High Value(S)	-	17	
NR Low Value(S)	-	51	
NR Read M/S	-	0 0	

4-2-1(E) VIDEO ADJUST4

Item	Range	Initial Data	Remark
SECAM Color Main	0 ~255	28	FIX
SECAM Color Pip	0 ~255	28	
Picture Limit	0 ~ 3	3	
OSD Contrast	0 ~ 15	10	
TTX Contrast	0 ~ 15	3	

4-2-1(F) OPTION

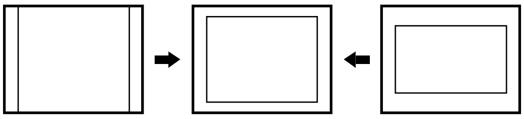
Item	Setting Data	Appliance (Southeast Asia)	Appliance (CHINA)	Appliance (Middle East)
LANGUAGE	ENG+THAI / ENG+CHINA ENG+MIDDLE / ONLY ENG	ONLY ENG ENG+THAI(Thailand)	ENG+CHINA	ENG+MIDDLE
SOUNG	A2-NICAM/Virtual Dolby	Virtual Dolby	Virtual Dolby	Virtual Dolby
CRT	WIDE / 4:3	4:3(Option)	4:3(Option)	4:3(Option)
CHANNEL	100-channel / 200-channel /250-chanel	100-channel	200-channle	250-channle
X-LAY	OFF / ON	ON	ON	ON
TTX	OFF / ON	ON	OFF	ON
AUTO FM	OFF / ON	ON	ON	ON
PIP	OFF / 2-TUNER	2-TUNER	2-TUNER	2-TUNER
MULTI PIP	OFF / ON	ON	ON	ON
LNA	OFF / ON	ON	ON	ON
HIGH DEV	OFF / ON	OFF	OFF	OFF
SCART	RCA+1SCART+DVD / RCA+DVD	RCA+1SCART+DVD	RCA+DVD	RCA+1SCART+DVD
LETTER BOX	OFF / ON	ON	ON	ON
DW PIP	OFF / ON	OFF	OFF	OFF
LIST PRIOR	OFF / ON	OFF ON(AUSTRALIA)	OFF	OFF
TTX LANG	WEST EUROPE / EAST EUROPE RUSSIAN / GREEK-TURKEY ARABIC / FARSI / AREB-HEBREW	WEST EUROPE	WEST EUROPE	ARABIC
AGC	OFF / ON	OFF	OFF	OFF
AV MEMORY	OFF / ON	OFF	OFF	OFF
AUSTRALIA	OFF / ON	OFF	OFF	OFF

4-2-2(G) YC DELAY

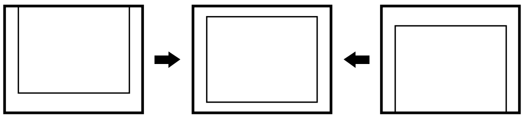
Item	Range
P.YC(AV) Delay	1
S.YC(AV) Delay	-5
N.YC(AV) Delay	1
P.BG.YC Dealy	1
P.DK.YC Delay	-2
P.I.YC Delay	0
P.M.YC Delay	0
P.N.YC Delay	0
S.BG.YC Delay	-7
S.DK.YC Delay	-9
S.I.YC Delay	-9
S.M.YC Delay	-7
S.L.YC Delay	-10
N.M.YC Delay	3

4-3 Screen Change (When Adjusting I^2C Bus Geometric Items)

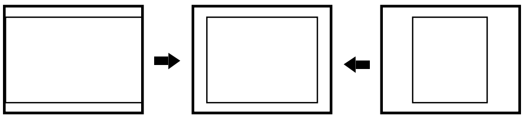
1 V AMP



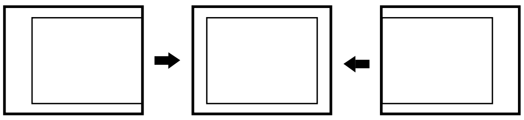
2 V SHIFT



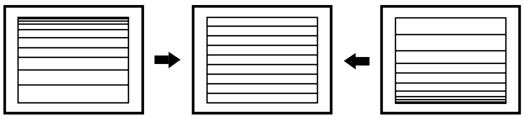
3 H EW



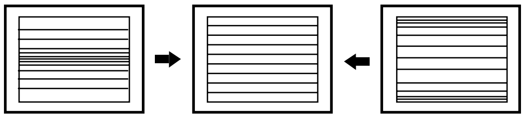
4 H SHIFT



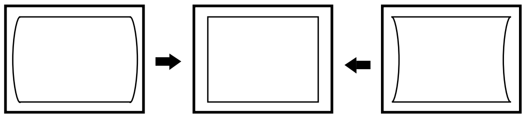
5 V LINEARITY



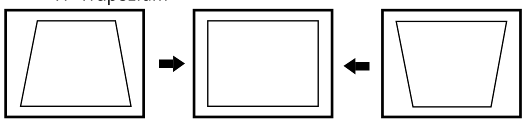
6 V - S - CORRECTION



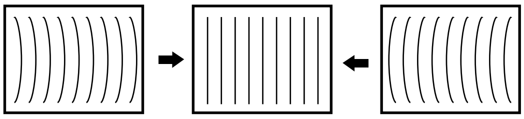
7 H Parabolra



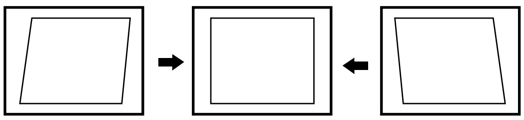
8 H Trapezium



9 BOW



10 ANGLE



4-4 Other Adjustments

4-4-1 Screen Adjustment

1. Warm up the TV for at least 30 minutes.
2. Select the “DYNAMIC” Video mode.
3. Trun to the Video Mode(No Signal) using a remote-control.
4. Connect an oscilloscope to RK, GK, BK.
5. Adjust the VR (VR501, VR531, VR561) screen so that RK, GK, BK pulse is 20Vp-p each. (Turn the R,G,B VR screen fully counterclockwise in the area of each flyback line.)

4-4-2 White Balance Adjustment

1. Select the “DYNAMIC” video mode.
2. Input 100% white pattern.
3. In the stand-by mode, press the remote-control keys in the following sequence:
   Displsy → Menu → Mute → Power ON
4. Warm up the TV for at least 30 minutes.
5. Input a 10-step signal.
6. R-cut off, B-cut off, and G-cut off by pressing the Volume +/- keys.
7. Adjust the low light with viewing the dark side of the screen.
8. Select R-drive, G-drive and B-drive by pressing the Volume +/- keys.
9. Adjust the high light with viewing the light side of the screen.
10. If necessary, redo adjustments 6~9.
11. Press the Menu key to exit.

4-6-3 Sub-Brightness Adjustment

1. Input a sub-brightness adjustment signal. (TOSHIBA PATTERN)
2. In the stand-by mode, press the remote-control keys in the following sequence :
   Displsy → Menu → Mute → Power ON
3. Select Sub-Bright by pressing the Volume +/- keys.
4. Adjust so that the 63 step on the right side of the screen is not seen (Use the Volume +/- keys).
5. Press the Menu key to exit.

4-4-4 High Voltage (30KV) Check

PRECAUTION

1. Input a lion head pattern.
2. Select “DYNAMIC” video mode.
3. Warm up the TV for at least 10 minutes.
4. Use a digital multimeter.

ADJUSTMENT

1. Connect the (+) terminal of the digital multimeter to Q471 and the (-) terminal to Q401 (located on the deflection board).
2. Adjust RR471S (located on the sub board) so that the digital meter indicates DC290V ± 0.1V.

4-4-5 F.S. (Fail Safe) Circuit Check (GT430,GT431)

Note : The F.S. Circuit check must be performed after servicing.

1. Turn on the TV.
2. Select the “DYNAMIC” video mode.
3. Short F/S Test point (located on the SUB PCB). Then, both sound and picture disappear. (Note: Even if the shorted terminals are removed, both sound and picture do not appear. This proves the F.S. circuit is working.)
4. To restore both sound and picture, turn off the TV and reset it after about 30 seconds.

4-4-6 Static Focus Adjustment

PRECAUTION

1. Select the “DYNAMIC” video mode.
2. Input a crosshatch pattern.
3. Cover the lenses that are not being adjusted.
4. Connect a convergence jig and read data.
5. Adjust the lens for best focus. (See Fig, 4-1)

STATIC FOCUS (CONTINUED)

Vary the focus pack VR (Red, Blue) on the front cabinet. Adjust the TV for best possible focus around the center of the crosshatch pattern, without losing overall screen balance.
Figure Crosshatch Pattern
Examine these points together.

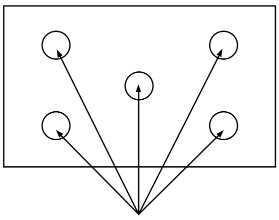


Fig. 4-1 Crosshatch Pattern.

4-4-7 Lens Focus Adjustment

PRECAUTIONS

1. Do this adjustment after the static focus adjustment and the tilt adjustment.
2. Select the “DYNAMIC” video mode. (Contrast:100, Brightness:50)
3. Input a crosshatch pattern.

ADJUSTMENT

1. Loosen the lens screws.
2. Cover the two lenses that are not being adjusted.
3. Adjust the lens, observing the color aberration vertically and horizontally within 3 blocks of the center of the crosshatch pattern.
4. When the lens is turned clockwise, the color aberration will change as follows:

Lens	Color Aberration Change
R	Orange - Crimson
G	Blue - Red
B	Purple - Green

5. Green lens adjustment:
   Set the lens at the point where Blue just changes to Red. If the color aberration is irregular throughout the picture screen, adjust the lens to show Red color aberration (approximately 1~3 mm area) within a 3-block grid around the horizontal center-line. If the color aberration is irregular, adjust the lens as shown in the diagram below. (Accurate alignment of Green is important for overall color quality.)
6. Red lens adjustment
   Set the Red lens at the point where Orange becomes Crimson.
7. Blue lens adjustment
   Set the Blue lens at the point where Purple becomes Green.

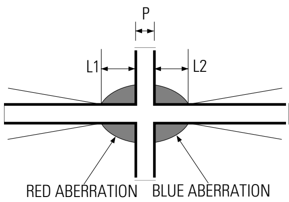
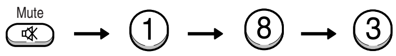


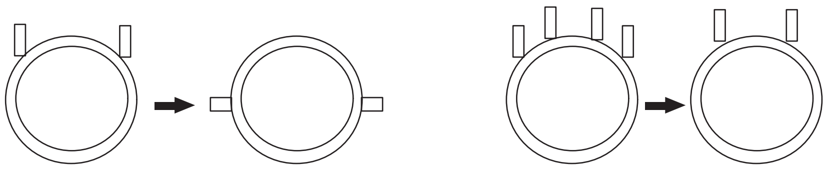
Fig. 4-2 Color Aberration

4-5 Beam alignment Adjustments

1. Select the “DYNAMIC” video mode.
2. Warm up the set at least for 10 minutes.
3. Enter the Convergence mode by pressing the remote control buttons in the following sequence :

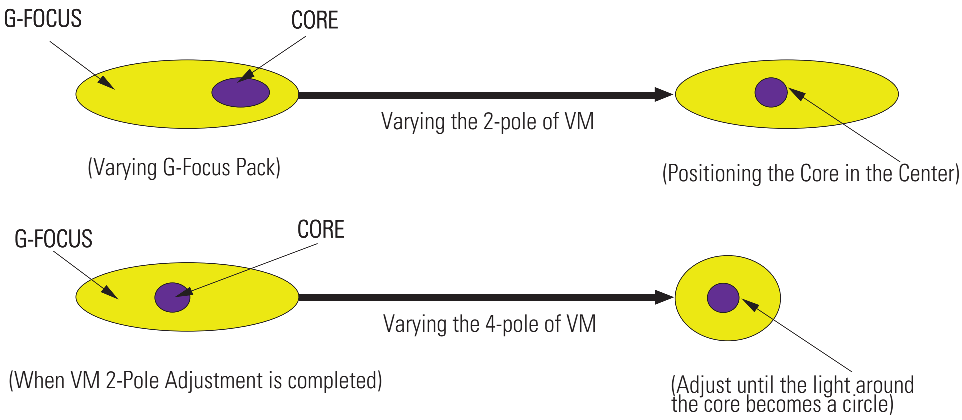


4. Set the Beam Alignment Adjustment CY to Zero magnetic field area.



(Creation of CPM Zero Magnet) (Creation of the 2-pole/4-pole zero magnets)

5. Check the squarewave at the point where the focus is misaligned.
6. Press the (7) button on the remote control during 3~5 sec and vibrating dot-pattern appears.
7. Adjust the Focus-pack VR for defocusing.
8. Mute the other patterns (R/B) other than G-PATTERN.
   (Use (-/--) / (TV) buttons on the remote control.)

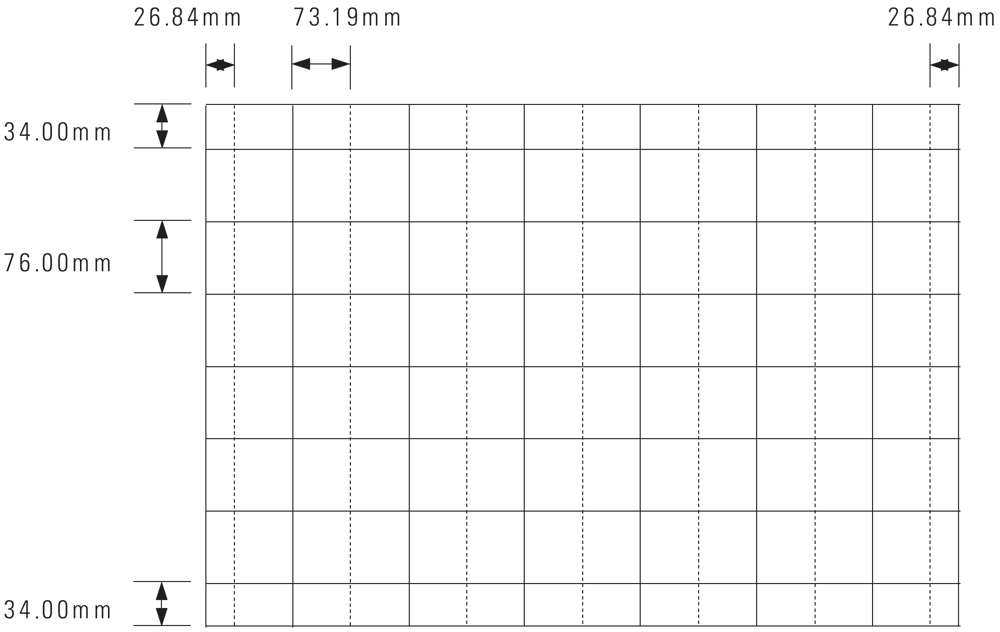


9. Adjust the 2, 4 polarities of VM-COIL as shown in figure below.
10. Adjust the G-Focus until any light around the core disappears.
11. Adjust G-Focus so that the surrounding flash can disappear from the spot.
12. After G-Focus adjustments are complete, adjust R-Focus as above procedures.
13. The B-CRT adjustments can be omitted because the variance of beam focus is small.
    (Only Vm-coil is mounted.)
14. Adjust the Focus-pack VR for fine focusing.
15. Press the (7) button on the remote control, and the mode changes to the Convergence Adjustment mode.
16. Press the (S.STD) button on the remote control to return to normal viewing.

4-6 SCREEN-JIG

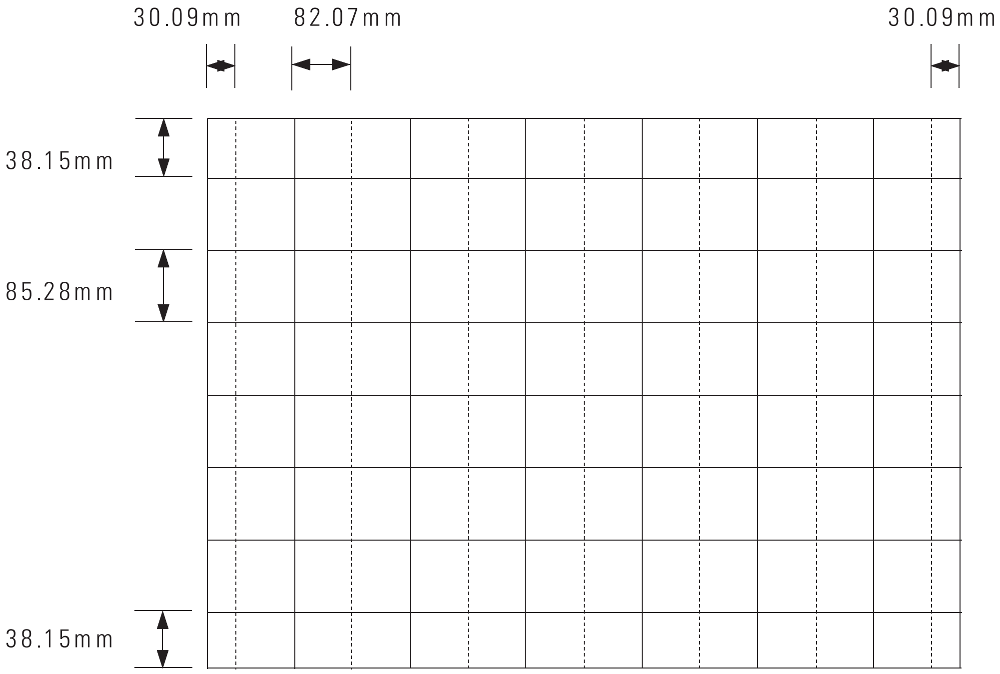
4-6-1 42W5

42W5 Screen Size : X 932, Y 524 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE



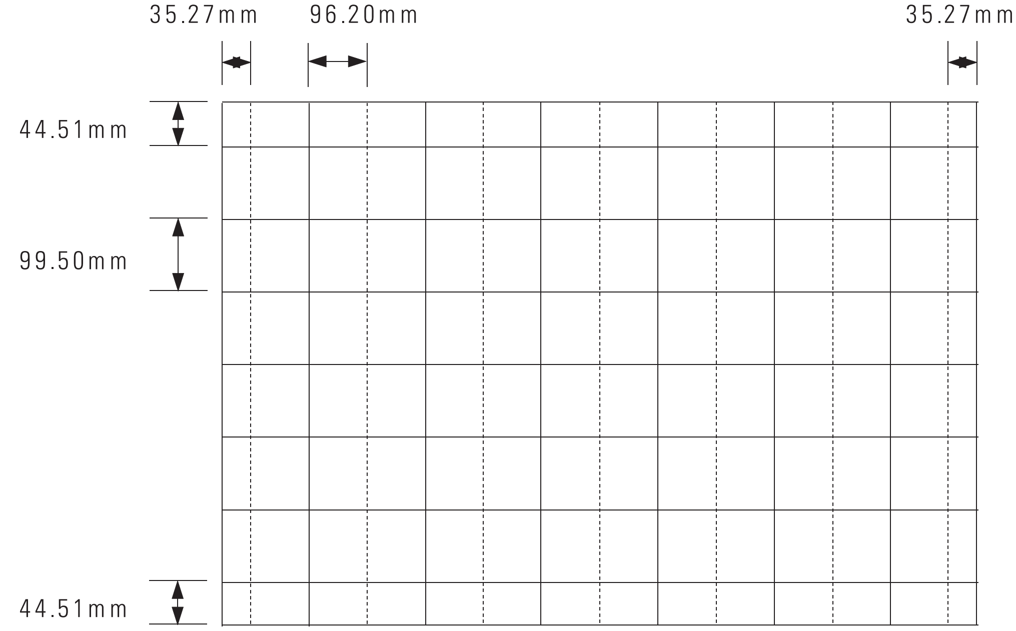
4-6-2 47W3

47W3 Screen Size : X 1045, Y 588 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE



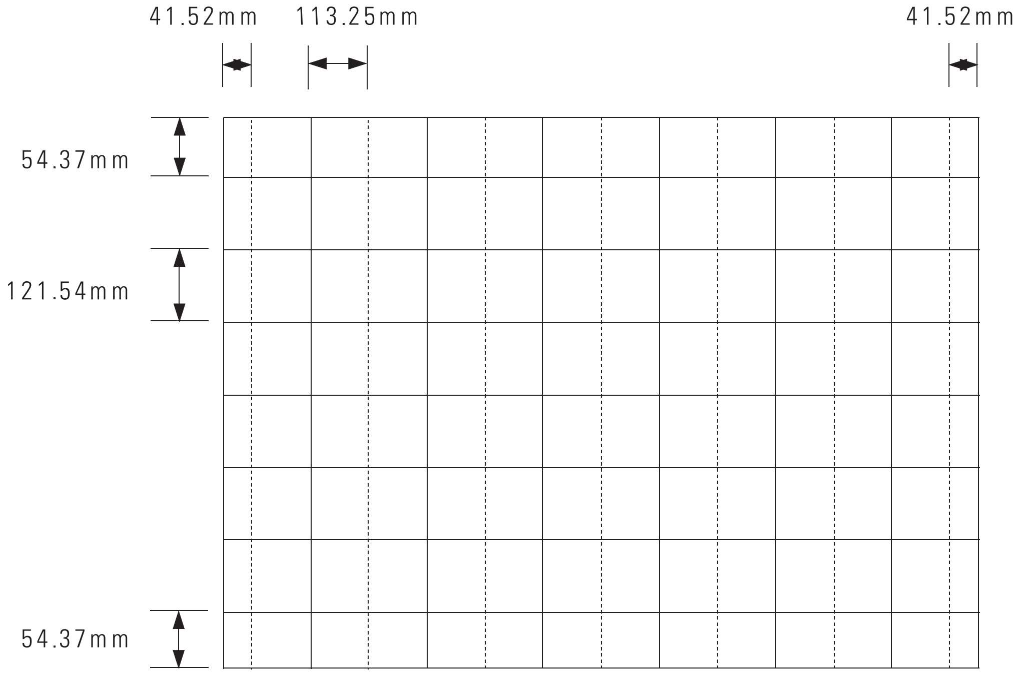
4-6-3 55W3

55W3 Screen Size : X 1225, Y 686 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE



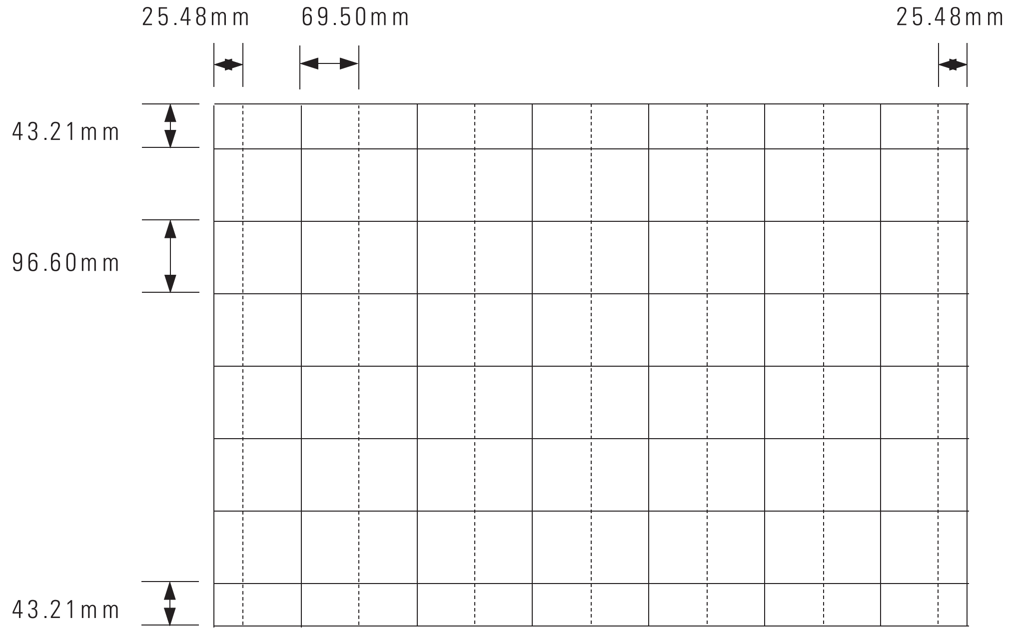
4-6-4 65W3

65W3 Screen Size : X 1442, Y 838 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE



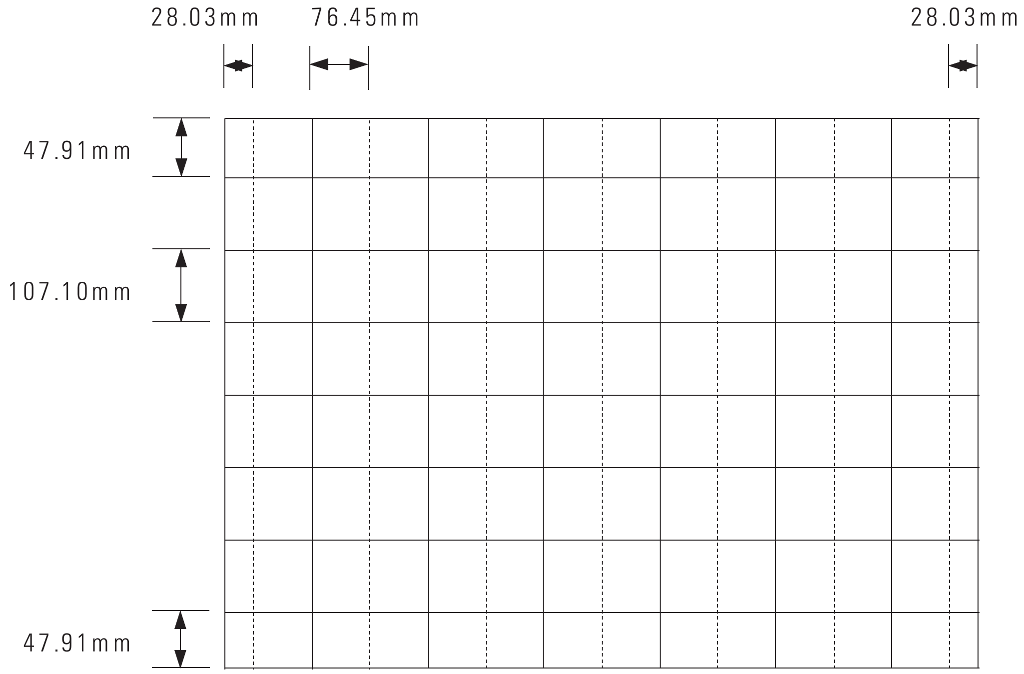
4-6-5 43T6/43T7

43T6 Screen Size : X 885, Y 666 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE



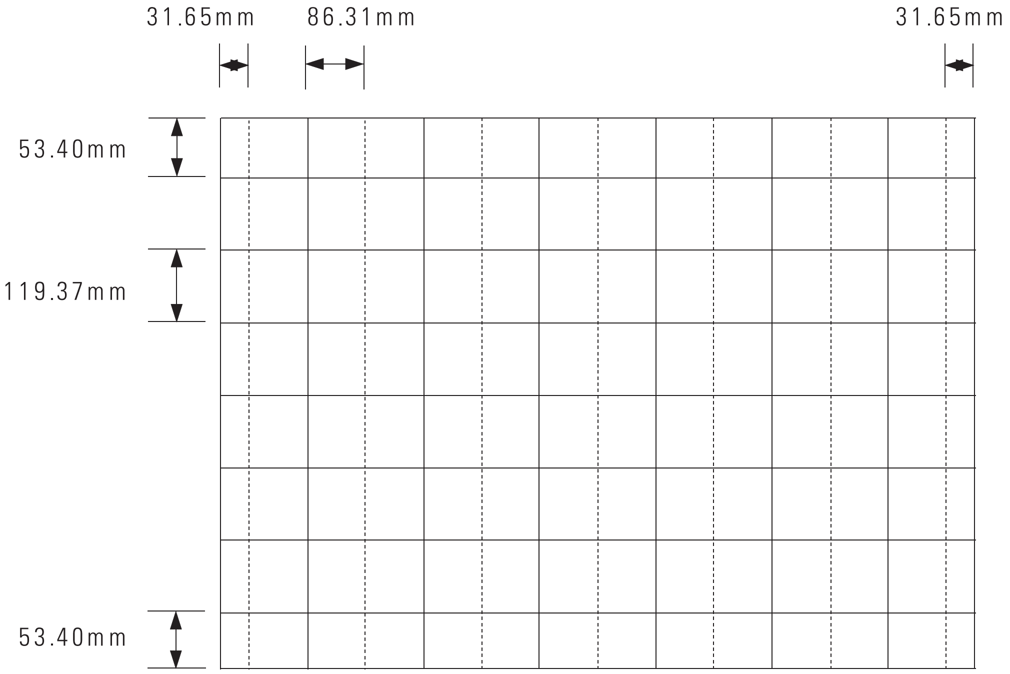
4-6-6 48T6

48T6 Screen Size : X 973.4 Y 738.4 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE



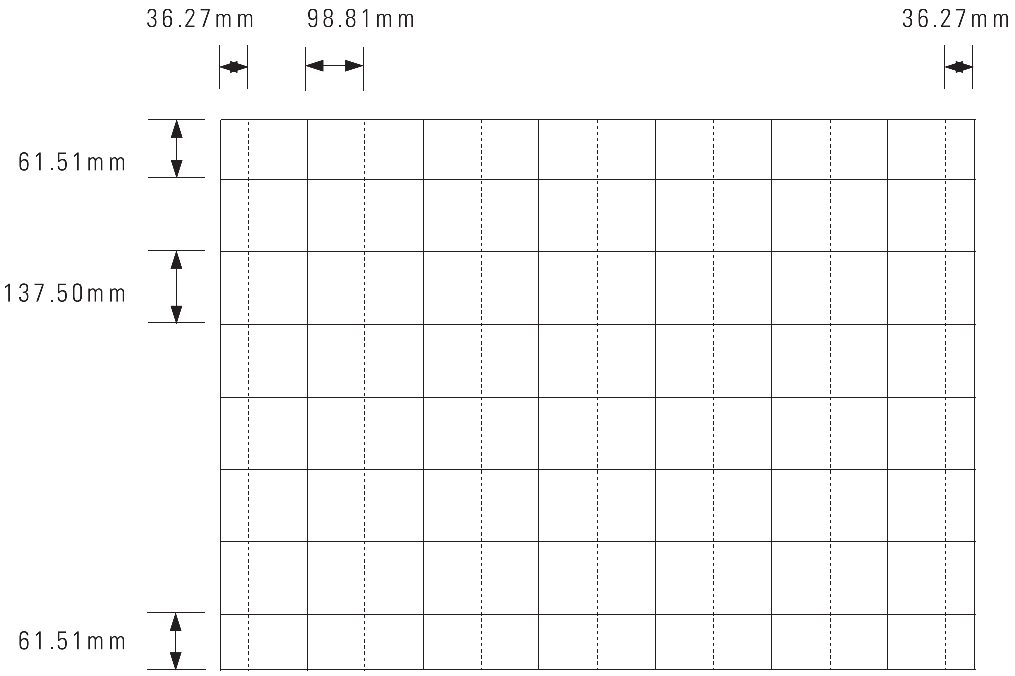
4-6-5 54T6

54T6 Screen Size : X 1099 Y 823 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE

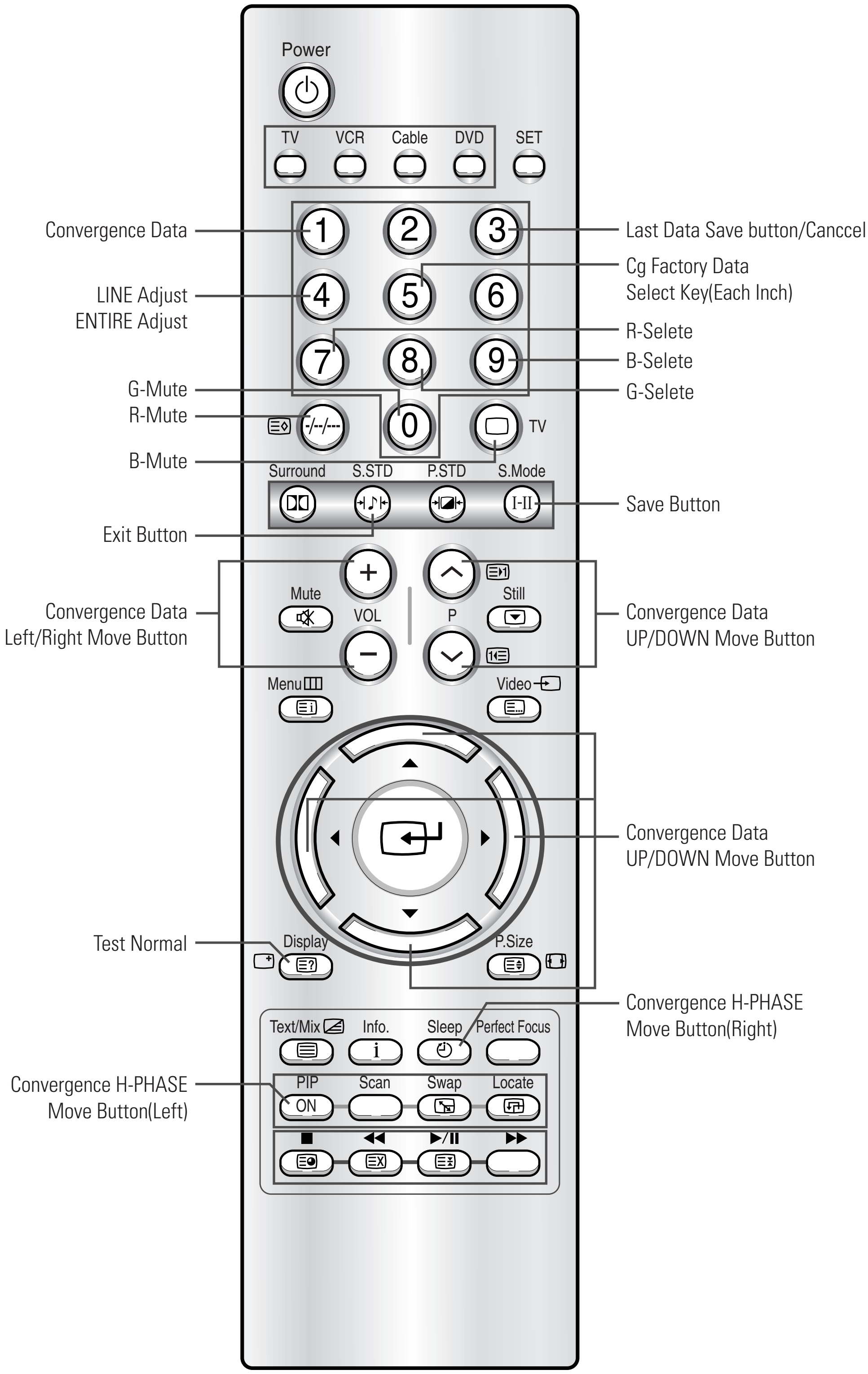


4-6-6 62T6

62T6 Screen Size : X 1259.4, Y 948 (X:764 = 22 x 2 + 60 x 12, Y:262 = 17 x 2 + 38 x 6)-PAL MODE



4-7 Remote Control for Servicing(Convergence Mode)



4-7-1 KEY Function

1. R-SELECT ⑦
   Press to select RED color.

2. G-SELECT ⑧
   Press to select GREEN color.

3. B-SELECT ⑨
   Press to select BLUE color.

4. R-MUTE (-/--)
   Press to mute RED color.

5. G-MUTE ⓪
   Press to mute GREEN color.

6. B-MUTE TV
   Press to mute BLUE color.

7. CANCEL KEY ③
   Press to revert to the previous data during the Convergence Adjustment.

8. TEST / NORMAL Display
   Press to check TV mode in the Convergence Mode.

9. LINE SHIFT ④
   Press to move a line up / down or left / right.

10. FACTORY DATA SELECT BUTTON ②
    Press to call the factory default values.

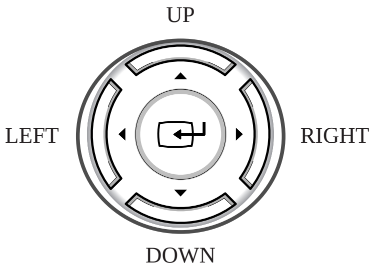
11. SAVE BUTTON S.Mode (I-II)
    After the Convergence Adjustments are completed, press to save data.

12. EXIT BUTTON S.STD
    After the Convergence adjustments are completed, press to exit to TV mode.

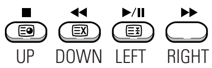
13. CURSOR MOVE BUTTON

Press to move the cursor up / down or right / left.

①

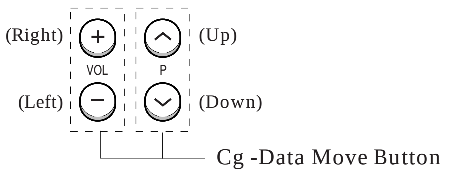


②



③ (Mute) Press to move the cursor left or up.
(Video) Press to move the cursor right or down.
(Menu) Press switch the cursor direction horizontally or vertically.

14. CONVERGENCE PICTURE MOVE BUTTON



15. CONVERGENCE MOVE BUTTON

Press to move the convergence right () or left () .

16. CONVERGENCE DATA ZERO BUTTON ①

Press to zero the convergence correction data.

17. INITIAL DATA SET BUTTON ②

Changes when applying Almighty-Cg, Module (How to extract the basic Cg Data)

Inch (Type)	Model Name	Basic Data	Screen Display
	Representative Model	Number after entring the Cg-Mode	
42″ (42W5)	SP42W5	5-425 (Press in regular order)	□□□□ □□□□
47″ (47W3)	SP47W3	5-473(Press in regular order)	□□□□
55″ (55W3)	SP55W3	5-553(Press in regular order)	□□□□□
43″ (43T6	SP43T6	5-436(Press in regular order)	＋＋＋＋
43″ (43T7)	SP43T7	5-437(Press in regular order)	＋＋＋＋＋
48″ (48T6)	SP48T6	5-485(Press in regular order)	＋＋＋＋＋＋
54″ (54T6)	SP54T6	5-545(Press in regular order)	＋＋＋＋
62″ (62T6)	SP62T6	5-625(Press in regular order)	＋＋＋＋ ＋＋＋＋
65″(65W3)	SP65W3		

18. Data shift Button (Locate) Press to transmit data(PAL Mode / NTSC Mode).

4-8 Convergence Adjustment

4-8-1 Convergence Adjustment

NOTE

Special Notes

✏ A sensor is attached on the center of each side of the Convergence Mode pattern (see figure below). The sensors are required for normal Perfect Focus function.

✏ Use a screen jig to do the convergence adjustments correctly (Especially, perform correct convergence adjustments on the center of each side where a sensor is located.)

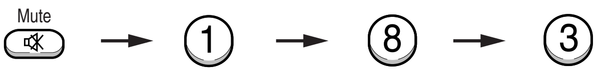
✏ Do the convergence adjustments correctly. Otherwise, any Perfect Focus error can happen.

1. Warm up the TV for a least 30 minutes.

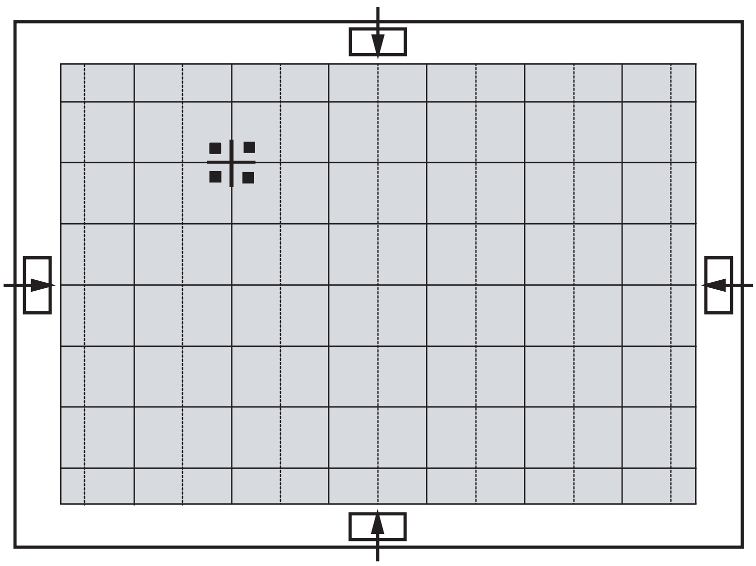
2. Input an PAL Signal.(Use an antenna or AV source.)

NOTE Make sure that deflection yoke are properly adjusted so that the center of Green, Red, Blue pattern is aligned on the center of screen jig.

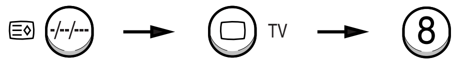
3. Enter the Convergence Mode by Pressing the remote control keys in the following sequence:



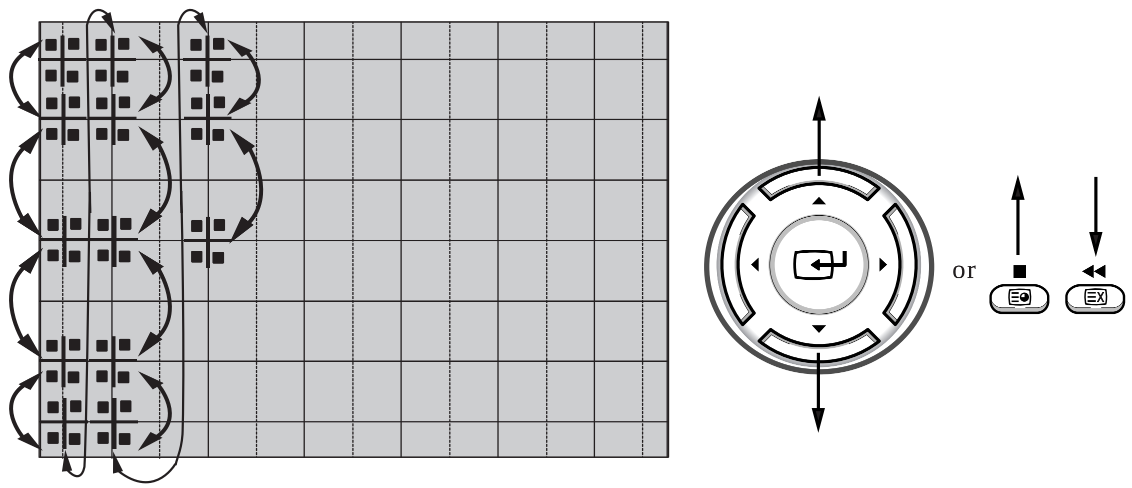
NOTE If OSD displayed as shown in figure below, press the S.STD key to exit.
Then, redo step 3 to enter the Convergence Mode.
After entering the Convergence Mode, Stand by for about five seconds before doing the adjustments.



4. To adjust GREEN, first press the -/--/--- and the TV keys, and then press the 8 key.

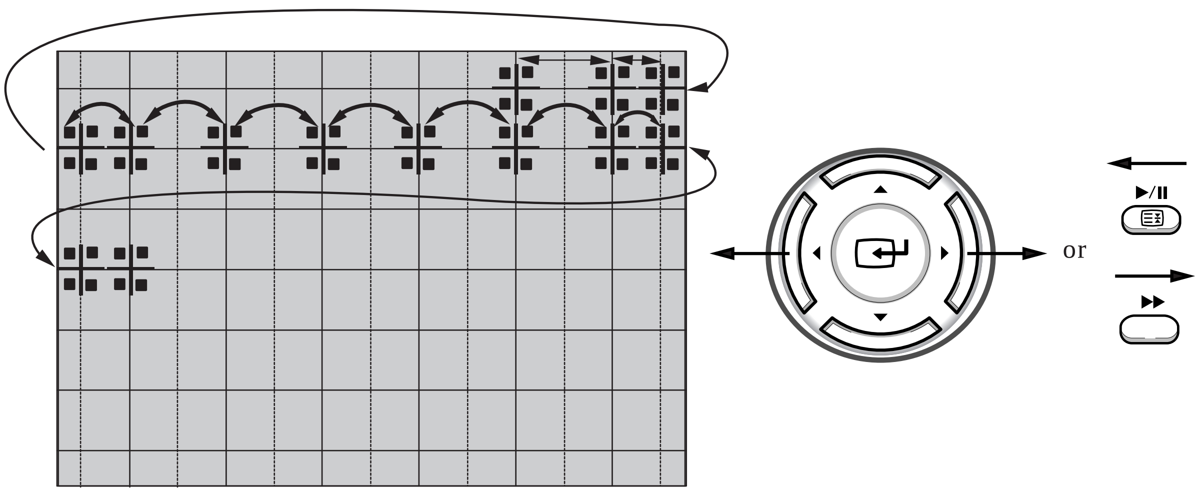


5. The Menu key moves the cursor horizontally or vertically

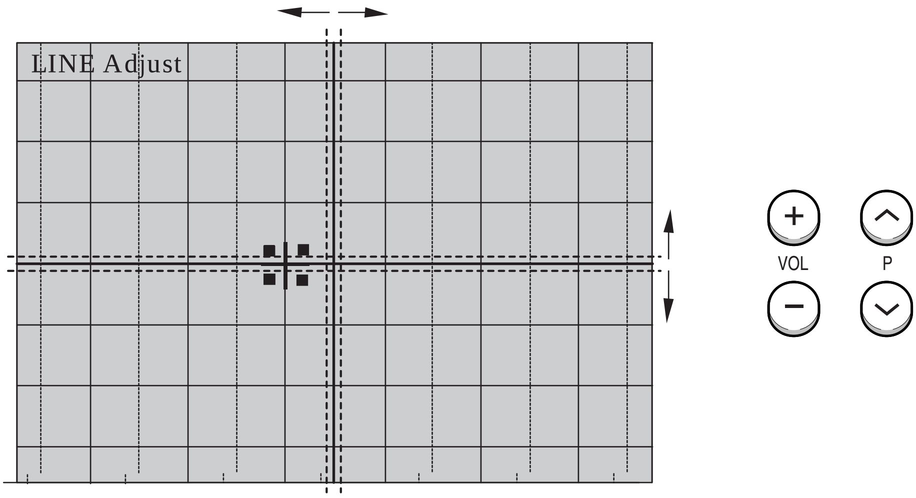


NOTE When the Menu key is pressed once again, the cursor moves horizontally.

6. The Mute key moves the cursor right, and the P.Size key moves the cursor left.



7. Use the (4) key for overall balance.

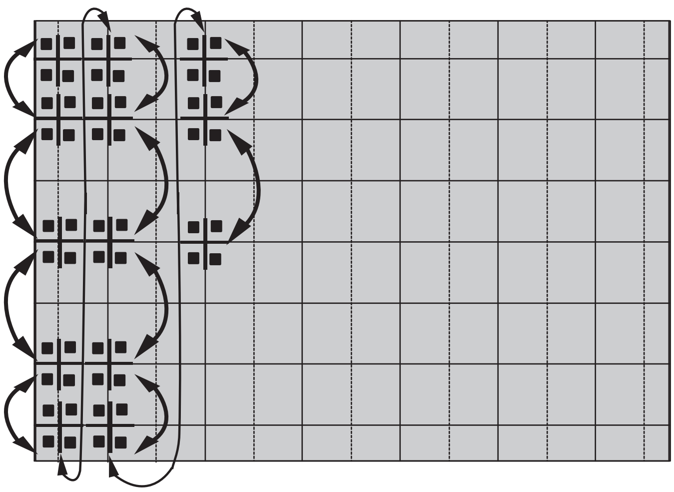


8. After the Line Shift is cancelled by pressing the (4) key, use the Channel and Volume keys (Up/Down/Right/Left) to make big adjustments.

9. After the green convergence adjustments are completed, press the S.Mode (I-II) key to save the data.

10. Superimpose the Red and Green colors by pressing the (-/--/---) and the (7) keys.

11. To adjust RED, redo steps 5~7.



When the cursor moves vertically Menu

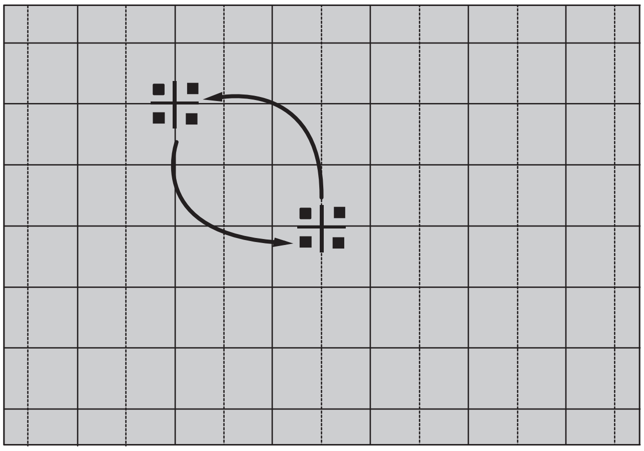
12. To superimpose the blue and green colors, press (1) the -/--/--- key for R-Mute, (2) the TV key to cancel the B-Mute, and (3) the 9 key for B-select.

13. To adjust BLUE, redo steps 5 ~ 7, 13.

14. If any color is not properly adjusted when displaying the red, blue and green colors, readjust the color.

15. After the color adjustments are completed, press the S.Mode I-II key to save the data.

NOTE The cursor moves to center, and then automatically moves up and to the left about five seconds later.

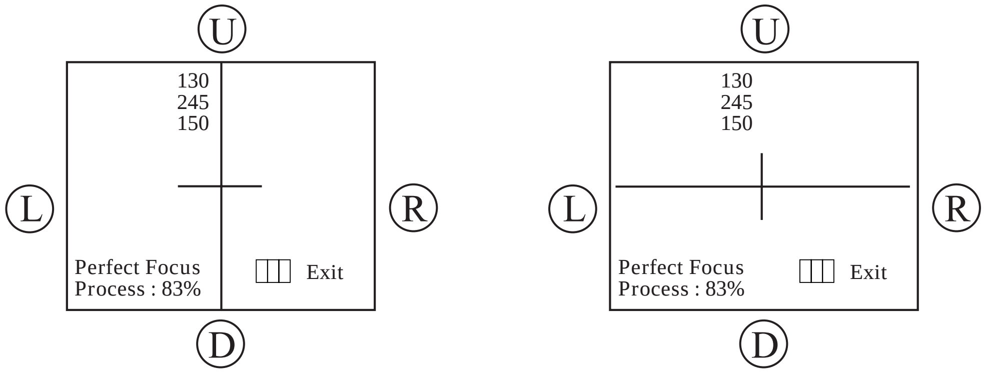


4-8-2 Perfect Focus(Factory Mode)

1. After the adjustment is completely saved, press the Perfect Focus key to perform Auto Convergence(Factory Mode). Auto Convergence is performed in the following sequences:

G → R → B

Up, Down → Left, Right



When Auto Convergence is complete, the data is automatically saved and the convergence pattern reverts.

NOTE

- After Factory Auto Convergence is complete, make sure that the cursor flickers for about 1 second on the center and then it is saved.
- Check the presence of error through the flicker of the cursor.
- When any error happens, be sure to re-do Factory Auto Convergence.
- When Convergence Adjustment is not normally done or the convergence center is misaligned with the sensing point, any adjustment error happens. Therefore, be sure to use a screen jig to correctly adjust during troubleshooting.

2. After the Convergence Adjustments are completed, press the S.STD key to exit.

4-9 MICOM and Pins Voltage

4-9-1 Pin Layout

SDA5550M-OTP (SIM-814EW)

Pin	Function
1	DO1
2	DO4
3	DO2
4	DO3
5	GND
6	2.5V
7	GND
8	3.3V
9	W.P
10	SDA2
11	SCL2
12	BUS-STOP
13	SDA1
14	SCL1
15	S-RESET
16	V-MUTE
17	GND
18	N.C
19	N.C
20	GND
21	TTX-CVBS
22	2.5V
23	GND
24	MAIN-AFT
25	SUB-AFT
26	KEY2
27	KEY1
28	N.C
29	H-BLK
30	V-BLK

Pin	Function
30	N.C
31	N.C
32	N.C
33	C/SPK MUTE
34	IR
35	PROTECT
36	TIMER LED
37	STD LED
38	N.C
39	GND
40	3.3V
41	N.C
42	N.C
43	SW3/SW2
44	N.C
45	AMP MUTE
46	POWER
47	1080I
48	N.C
49	N.C
50	RESET

Pin	Function
51	N.C
52	XTAL2
53	XTAL1
54	N.C
55	GND
56	2.5V
57	OSG-R
58	OSD-G
59	OSD-B
60	OSD-F/B
61	N.C
62	N.C
63	N.C
64	N.C
65	N.C
66	N.C
67	N.C
68	N.C
69	A16
70	A17
71	A15
72	N.C
73	2.5V
74	GND
75	3.3V
76	A14
77	A12
78	A13
79	A7
80	N.C

Pin	Function
81	A8
82	A6
83	A9
84	A5
85	A11
86	A4
87	LE
88	PSEN
89	A3
90	A10
91	GND
92	3.3V
93	A2
94	A1
95	N.C
96	DO7
97	A0
98	D06
99	D00
100	D05

4-9-2 MICOM MODULE Pins

PIN NO.	ITEM	FUNCTION	OUT VOLT
1	KEY 1	KEY SCAN1	2.28[V]
2	PROTECT	PROTECT PORT	0.83[mV]
3	KEY 2	KEY SCAN2	2.25[V]
4	GND	GND	-
5	N.C	N.C	-
6	STB-5(V)	VCC	4.91[V]
7	IR IN	REMOCON INPUT	3.74[V]
8	POWER	POWER ON/OFF RELAY CONTROL	1.03[V]
9	TIMER-LED	TIMER LED	2.07[V]
10	N.C	N.C	-
11	GND	GND	-
12	V-RESET	VIDEO RESET	2.84[mV]
13	SCL1	SERIAL CLOCK LINE1	3.43[V]
14	GND	GND	-
15	SDA1	SEREAL DATA LINE1	3.49[V]
16	S-RESET	SOUND RESET	4.21[V]
17	ST-BY-LED	STAND-BY LED	2.95[V]
18	RESET	RESET	2.47[V]
19	AMP-MUTE	SOUND AMP MUTE	0.89[mV]
20	N.C	N.C	-
21	GND	GND	-
22	N.C	N.C	-
23	SCL2	SERIAL CLOCK LINE2	3.27[V]
24	C-SPK MUTE	CENTER SPEAKER MUTE	3.26[V]
25	SDA2	SERIAL DATA LINE2	3.27[V]
26	SW3	SW3(CONTROL)	5[mV]
27	GND	GND	-
28	SW2	SW2(CONTROL)	2.08[V]
29	SUB-AFT	SUB TUNER AFT CONTROL	2.57[V]
30	GND	GND	-
31	MAIN-AFT	MAIN TUNER AFT CONTROL	1.04[V]
32	BUS-STOP	IIC BUS STOP	3.27[V]

PIN NO.	ITEM	FUNCTION	OUT VOLT
33	5[V]	5[V]	4.96[V]
34	H-BLANK	HORIZONTAL BLANK	215.8[mV]
35	GND	GND	-
36	V-BLANK	VERTICAL BLANK	-12.10[mV]
37	N.C	N.C	-
38	GND	GND	-
39	GND	GND	-
40	N.C	N.C	-
41	VS1	VERTICAL SYNC	-
42	N.C	N.C	-
43	HS1	HORIZONTAL SYNC	215.51[mV]
44	N.C	N.C	-
45	GND	GND	-
46	N.C	N.C	-
47	TTX-CVBS	TTX/CAPTION-CVBS	1.19[V]
48	GND	GND	-
49	GND	GND	-
50	N.C	N.C	-
51	AN-LINK	NOT USE	-
52	N.C	N.C	-
53	GND	GND	-
54	N.C	N.C	-
55	N.C	N.C	-
56	GND	GND	-
57	N.C	N.C	-
58	OSD-TTX-R	ON SCREEN DISPLAY RED	168[mV]
59	GND	GND	-
60	OSD-TTX-G	ON SCREEN DISPLAY GREEN	0.46[V]
61	WP	WRITE PROTECT	-
62	OSD-TTX-B	ON SCREEN DISPLAY BLUE	0.46[V]
63	3.3[V]	3.3[V]	3.26[V]
64	OSD-TTX-FB	OSD/TTX-FB	7.31[mV]

4-9-3 PROSCAN MODULE Pins

PIN NO.	ITEM	FUNCTION	OUT VOLT
1	EW	EAST WEST OUT	2.26[V]
2	V-BLK	VERTICAL BLANK	-12.07[mV]
3	ABL	ABL(Automatic Brightness Limiter)	2.26[V]
4	VD-	VERTICAL DRIVE(-VOLTAGE)	3.46[V]
5	VD+	VERTICAL DRIVE(+VOLTAGE)	3.53[V[
6	H-BLK	HORIZONTAL BLANK	215.93[mV]
7	HD	HORIZONTAL DRIVE	2.38[V]
8	GND	GND	-
9	OSD/TTX-FB	OSD/TTX-FB	7.29[mV]
10	OSD/TTX-B	ON SCREEN DISPLAY BLUE IN	0.46[mV]
11	OSD/TTX-G	ON SCREEN DISPLAY GREEN IN	0.46[mV]
12	OSD/TTX-R	ON SCREEN DISPLAY RED IN	167.99[mV]
13	V-RESET	VIDEO RESET	2.94[mV]
14	GND	GND	-
15	SCL1	SERIAL CLOCK LINE	3.42[V]
16	SDA1	SERIAL DATA LINE	3.50[V]
17	N.C	N.C	-
18	COMP	COMP	27.28[mV]
19	GND	GND	-
20	CG-R	CONVERGENCE RED	0.27[mV]
21	CG-G	CONVERGENCE GREEN	0.27[mV]
22	CG-B	CONVERGENCE BLUE	0.29[mV]
23	CG-SYNC	CONVERGENCE SYNC	180.03[mV]
24	D/F	DYNAMIC FOCUS	1.5[V]
25	GND	GND	-
26	9[V]	9[V]	9[V]
27	N.C	N.C	-
28	N.C	N.C	-
29	N.C	N.C	-
30	N.C	N.C	-
31	GND	GND	-
32	13.5[V]	13.5[V]	14.05[V]

PIN NO.	ITEM	FUNCTION	OUT VOLT
33	5[V]-DW1	5[V]-DW1	4.97[V]
34	VM-Y	VM-Y OUTPUT	1.97[V]
35	SW3	SW3(CONTROL)	4.98[mV]
36	SW2	SW2(CONTROL)	2.08[V]
37	N.C	N.C	-
38	GND	GND	-
39	PIP-C	PIP-C INPUT	1.20[mV]
40	PIP-Y CVBS	PIP-Y/CVBS INPUT	1.33[mV]
41	GND	GND	-
42	MAIN-C	MAIN-C INPUT	1.34[mV]
43	MAIN-Y CVBS	MAIN-Y/CVBS INPUT	1.57[mV]
44	N.C	N.C	-
45	GND	GND	-
46	N.C	N.C	-
47	GND	GND	-
48	RF2-CVBS	RF2-CVBS	-
49	DVD-Pr/R	DVD-Pr/R(SCART)	-
50	DVD-Y/G	DVD-Y/G(SCART)	-
51	DVD-Pb/B	DVD-Pb/B(SCART)	-
52	FB	FB(SCART)	-
53	GND	GND	-
54	N.C	N.C	-
55	N.C	N.C	-
56	N.C	N.C	-
57	GND	GND	-
58	DVD-Pr	DVD-Pr	-
59	DVD-Y	DVD-Y	-
60	DVD-Pb	DVD-Pb	-
61	GND	GND	-
62	5[V]-DW2	5[V]-DW2	4.89[V]
63	N.C	N.C	-
64	N.C	N.C	-

4-9-4 CONVERGENCE MODULE Pins

PIN NO.	ITEM	FUNCTION	OUT VOLT
1	5[V]-CG	5[V]-CG	5.2[V]
2	GND	GND	-
3	D/F	DYNAMIC FOCUS	1.5[V]
4	GND	GND	-
5	SCL1	SERIAL CLOCK LINE1	3.4[V]
6	CG-SYNC	CONVERGENCE SYNC	179[mV]
7	GND	GND	-
8	N.C	N.C	5.2[V]
9	CG-R	CONVERGENCE RED	0.27[mV]
10	CG-G	CONVERGENCE GREEN	0.26[mV]
11	CG-B	CONVERGENCE BLUE	0.29[mV]
12	SDA1	SERIAL DATA LINE1	3.5[V]
13	N.C	N.C	-
14	IR	INPUT REMOCON	3.7[V]
15	N.C	N.C	-
16	GND	GND	-
17	GND	GND	-
18	GND	GND	-
19	BV	BLUE VERTICAL OUT	34.27[mV]
20	BH	BLUE HORIZONTAL OUT	-107.32[mV]
21	GV	GREEN VERTICAL OUT	101.52[mV]
22	GH	GREEN HORIZONTAL OUT	-15.83[mV]
23	RV	RED VERTICAL OUT	104.32[mV]
24	RH	RED HORIZONTAL OUT	-88.95[mV]
25	GND	GND	-
26	H-BLK	HORIZONTAL BLANK	275[mV]
27	V-BLK	VERTICAL BLANK	-13.22[mV]
28	GND	GND	-
29	N.C	N.C	-
30	-5[V]	-5[V]	-4.99[V]
31	5[V]	5[V]	5.24[V]
32	GND	GND	-

You can search for the updated part code through ITSELF web site.
URL : http://itself.sec.samsung.co.kr

7. Electrical Parts List

7-1 SP43T8HPX/BOB

ASSY CPT-R

	Loc. No.	Code No.	Description ; Specification	Remark
1	T0026	BP91-00525A	ASSY CPT-R;SP43T7HPX/XEF,J54A	
..2		BP61-00079A	HOLDER-DY;,PJTV,T0.5,NYLON66 V2	S.N.A
..2	T0107	AA91-00735B	ASSY-BRKT,CRT;DP,AA91-00722A,PROJ	
...3	T0107	AA91-00722A	ASSY-BRKT,CRT;,SECC T1.6,PROJ	
..2	T0511	AA63-00076B	SPACER-LENS;FELT,W7,BLK,T0.8	S.N.A
..2	T0114	AA61-00810B	HOLDER-CAP;PROJ,PC,CLR	
..2		AA61-00809B	HOLDER-CRT;PROJ,PC/ABS GF 20%,BLK	S.N.A
..2		AA61-00056B	BRACKET-LENS;PROJECTION,SECC,T1.6,-,-,-,	S.N.A
..2	T0511	AA60-00127B	SPACER-LENS;PROJ,SILICONE,D/GRAY	S.N.A
..2	T0333	AA60-00126B	SPACER-CAP;PROJ,EPDM,BLK	S.N.A
..2	T0334	AA60-00125B	SPACER-CRT;PROJ,SILICONE,D/GRAY	S.N.A
..2	T0245	AA39-00018A	LEAD CONNECTOR-ASSY;,UL1015#22,UL/CSA,1P	
..2	T0079	AA33-00016A	MAGNET CONVERGENCE;JH 92LT - 29F,-,29.1M	
..2	T0078	AA27-00278A	DEFLECTION YOKE;-,PT-S0712AC,S/S,PJTCRT(	
..2	HC015	AA26-30006F	FLYBACK;*WIRE*-,FWZ-50A001C,55,30KV	
..2		AA61-00845A	CASE-COUPLER,R;DP,PROJ,AA61-00806B	S.N.A
...3		AA61-00806B	CASE-COUPLER,R;PROJ,ALDC,T8,BLK	S.N.A
..2		AA03-00307A	CRT MONO;P16QDU11RJA S,-,-,-,90%,-,FLA	S.N.A
..2	T0051	AA67-10008A	LENS;-,-,DELTA,77,RED,S4388,-	
..2	T0109	AA67-00147A	LENS-ASSY;,DELTA 78,CLEAR A/B	
..2	T0081	AA60-10011A	SCREW-TAPTITE;-,SWRCH18A,M4,L12,HH,+,PC,	S.N.A

ASSY CPT-G

	Loc. No.	Code No.	Description ; Specification	Remark
1	T0027	BP91-00526A	ASSY CPT-G;SP43T7HPX/XEF,J54A	
..2		BP61-00079A	HOLDER-DY;,PJTV,T0.5,NYLON66 V2	S.N.A
..2	T0107	AA91-00735B	ASSY-BRKT,CRT;DP,AA91-00722A,PROJ	
...3	T0107	AA91-00722A	ASSY-BRKT,CRT;,SECC T1.6,PROJ	
..2	T0511	AA63-00076B	SPACER-LENS;FELT,W7,BLK,T0.8	S.N.A
..2	T0114	AA61-00810B	HOLDER-CAP;PROJ,PC,CLR	
..2		AA61-00809B	HOLDER-CRT;PROJ,PC/ABS GF 20%,BLK	S.N.A
..2		AA61-00056B	BRACKET-LENS;PROJECTION,SECC,T1.6,-,-,-,	S.N.A
..2	T0511	AA60-00127B	SPACER-LENS;PROJ,SILICONE,D/GRAY	S.N.A
..2	T0333	AA60-00126B	SPACER-CAP;PROJ,EPDM,BLK	S.N.A
..2	T0334	AA60-00125B	SPACER-CRT;PROJ,SILICONE,D/GRAY	S.N.A
..2	T0245	AA39-00018A	LEAD CONNECTOR-ASSY;,UL1015#22,UL/CSA,1P	
..2	T0078	AA27-00278A	DEFLECTION YOKE;-,PT-S0712AC,S/S,PJTCRT(	
..2	HC015	AA26-30006F	FLYBACK;*WIRE*-,FWZ-50A001C,55,30KV	
..2		AA61-00846A	CASE COUPLER G;DP,PROJ,AA61-00807B	S.N.A
...3		AA61-00807B	CASE-COUPLER,G;PROJ,ALDC,T8,BLK	S.N.A
..2		AA03-00308A	CRT MONO;P16QDU11GHA S,-,-,-,90%,-,FLA	S.N.A
..2	T0051	AA67-10071A	LENS;DELTA 77 79,-,GREEN,C ELEMENT,	
..2	T0109	AA67-00147A	LENS-ASSY;,DELTA 78,CLEAR A/B	
..2	T0081	AA60-10011A	SCREW-TAPTITE;-,SWRCH18A,M4,L12,HH,+,PC,	S.N.A

ASSY CPT-B

	Loc. No.	Code No.	Description ; Specification	Remark
1	T0028	BP91-00527A	ASSY CPT-B;SP43T7HPX/XEF,J54A	
..2		BP61-00079A	HOLDER-DY;,PJTV,T0.5,NYLON66 V2	S.N.A
..2	T0107	AA91-00735B	ASSY-BRKT,CRT;DP,AA91-00722A,PROJ	
...3	T0107	AA91-00722A	ASSY-BRKT,CRT;,SECC T1.6,PROJ	
..2	T0511	AA63-00076B	SPACER-LENS;FELT,W7,BLK,T0.8	S.N.A
..2	T0114	AA61-00810B	HOLDER-CAP;PROJ,PC,CLR	
..2		AA61-00809B	HOLDER-CRT;PROJ,PC/ABS GF 20%,BLK	S.N.A
..2		AA61-00056B	BRACKET-LENS;PROJECTION,SECC,T1.6,-,-,-,	S.N.A
..2	T0511	AA60-00127B	SPACER-LENS;PROJ,SILICONE,D/GRAY	S.N.A
..2	T0333	AA60-00126B	SPACER-CAP;PROJ,EPDM,BLK	S.N.A
..2	T0334	AA60-00125B	SPACER-CRT;PROJ,SILICONE,D/GRAY	S.N.A
..2	T0245	AA39-00018A	LEAD CONNECTOR-ASSY;,UL1015#22,UL/CSA,1P	
..2	T0079	AA33-00018A	MAGNET CONVERGENCE;JH 92LT - 36F,-,29.1M	
..2	T0078	AA27-00278A	DEFLECTION YOKE;-,PT-S0712AC,S/S,PJTCRT(	
..2	HC015	AA26-30006F	FLYBACK;*WIRE*-,FWZ-50A001C,55,30KV	
..2		AA61-00847A	CASE-COUPLER,B;DP,PROJ,AA61-00808B	S.N.A
...3		AA61-00808B	CASE-COUPLER,B;PROJ,ALDC,T8,BLK	S.N.A
..2		AA03-00309A	CRT MONO;P16QDU11BEA S,-,-,-,90%,-,FLA	S.N.A
..2	T0051	AA67-10007A	LENS;-,-,DELTA,77,CLEAR,S4388,-	
..2	T0109	AA67-00147A	LENS-ASSY;,DELTA 78,CLEAR A/B	
..2	T0081	AA60-10011A	SCREW-TAPTITE;-,SWRCH18A,M4,L12,HH,+,PC,	S.N.A
1	T0456	BP91-00407A	ASSY MISC-CHASSIS-PACK;SP43T7HPS/XEF,J54	
1	T0100	BP94-00560A	ASSY PCB MISC-A/V FRONT;DP,SP43T8HPS/XEC	
1	T0098	BP94-00238A	ASSY PCB MISC-VM;DP,HCM4215W3S/XAA,P55A	
1	T0105	BP94-00239A	ASSY PCB MISC-DY-JACK;DP,HCM4215W3S/XAA,	

ASSY PCB MISC-CRT PCB

	Loc. No.	Code No.	Description ; Specification	Remark
1	T0107	BP94-00232A	ASSY PCB MISC-CRT PCB;DP,SP42W5HPS/XEU,J	
..2	T0103	AA59-00171A	MODULE-FOCUS,PACK;SVP-5200,S300-P3,-,-,-	
..2	T0077	AA39-20577B	LEAD CONNECTOR ASSY;P54A/SVP-55W3HD,UL16	

ASSY COVER P-FRONT BOT

	Loc. No.	Code No.	Description ; Specification	Remark
1	T0071	BP96-00296E	ASSY COVER P-FRONT BOT;43T8,HIPS,HB,GRY,	
..2	T0016	BP64-00184C	CABINET FRONT-BOTTOM;43T8,HIPS,HB,GRY,SV	S.N.A
..2	T0081	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK)	S.N.A
..2		AA61-01132A	VELCRO-A;COMMANDO,BST1 1/4H	S.N.A
..2		AA61-20129A	HOLDER-WIRE;-,NYLON-66,-,-,-,NTR,DAFC-25	S.N.A
..2		AA61-60003J	SPRING-CS;-,SUS304,-,-,OD6,	S.N.A
..2		BP61-00139A	GUIDE-KNOB CONTROL;42W4,DP,ABS,HB,G3676	S.N.A
..2		BP64-00078A	WINDOW REMOCON-LED;42W4,PC,42W4,PC,CL	S.N.A
..2	T0022	BP64-00266A	KNOB-CONTROL;DP,BP64-00165A,43T8	S.N.A
..2	T0023	BP64-00166A	KNOB POWER;54T8,ABS,HB,GRAY,G3676	
..2	T0057	BP64-00177A	BADGE-BRAND;AL,T1.5,70,11.3,BLK,SIL	S.N.A
..2	T0081	6003-001023	SCREW-TAPTITE;RWH,+,B,M3,L10,ZPC(YEL),SW	S.N.A
..2	T0098	BP94-00517W	ASSY PCB MISC-CONTROL;DP,SP43T8HPS/XEC,J	
..2		AA60-00077A	SPACER-DUAL,LOCK;54J8,#250,-,-,-,-,-,-,4	S.N.A

ASSY COVER P-FRONT MASK

	Loc. No.	Code No.	Description ; Specification	Remark
1	T0076	BP96-00295F	ASSY COVER P-FRONT MASK;43T8,HIPS,HB,G43	
..2	T0076	BP96-00295E	ASSY COVER P-FRONT MASK;43T8,HIPS,HB,G43	
...3	T0017	BP64-00183F	CABINET FRONT-MASK;43T8,HIPS,HB,G4309,SV	S.N.A
..2	T0254	BP61-00016C	BRACKET-SCREEN,TB;DP,43T7,BP61-00109A	
..2	T0056	BP61-00017C	BRACKET-SCREEN,RL;DP,43T7,BP61-00110A	
..2	HC+CW	6009-001296	SCREW-SPECIAL;BH,+,-,M4,L12(11),ZPC(BLK)	
..2	T0559	BP61-00043B	HOLDER-SENSOR;W9,PC HB,VIOLET	S.N.A

Loc. No.		Code No.	Description ; Specification	Remark
..2		BP95-00389A	ASSY SUB PCB-SENSOR;DP, BP95-00147D,SENS	
..2		BP61-00052A	HOLDER-WIRE;PJTV,NYLON,66,NATURAL	S.N.A
..2		AA65-00020A	CLAMP CORE-WIRE;55W9,NYLON 66	S.N.A
..2	T0077	BP39-00009A	LEAD CONNECTOR ASSY;P54A/SVP-42W5,UL2547	
..2	T0053	AA67-00115B	SCREEN-FRESNEL;43N,-,T2,910*692,-,-,-	
..2	T0056	AA67-00195A	SCREEN-TINT;43,908*690,T=0.73,P=0.52	
..2	T0081	AA60-10011A	SCREW-TAPTITE;-,SWRCH18A,M4,L12,HH,+,PC,	S.N.A
..2	T0102	BP73-00004A	RUBBER-CAP;42W5,SILICONE,WHT,RUBBER	
..2		AA63-10002A	BAND-TIE;-,NYLON66 V2,-,-,L100,NTR,-	S.N.A

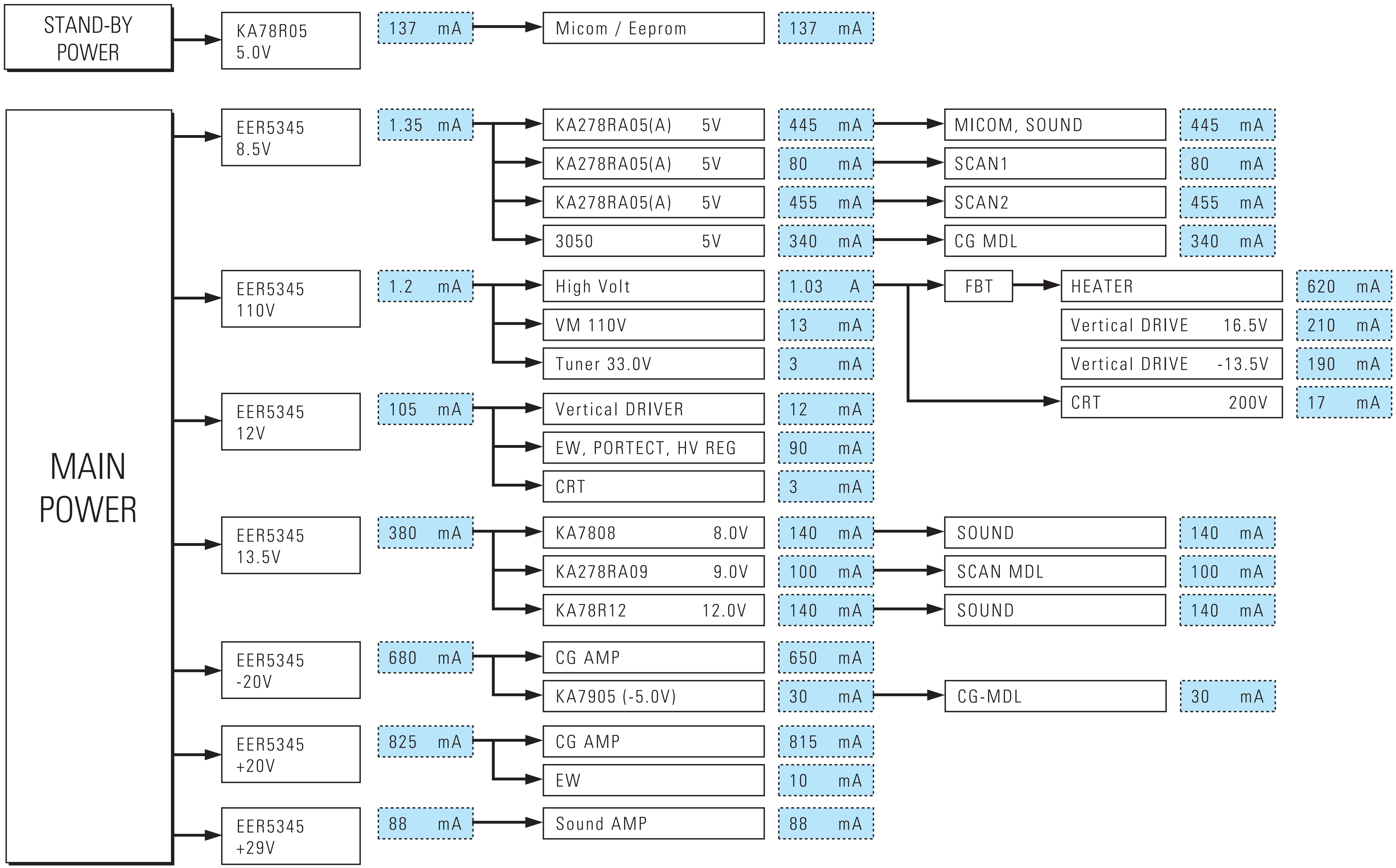
ASSY COVER P-WOOD

Loc. No.		Code No.	Description ; Specification	Remark
1	T0324	BP96-00294A	ASSY COVER P-WOOD;43T8,WOOD,M/EAST	S.N.A
..2	HC+CW	AA60-10051A	SCREW-WOOD;-,SWRCH18A,M4,L16,PH,+,-,-,ZP	S.N.A
..2	HC+CW	AA60-10051B	SCREW-WOOD;-,SWRCH18A,M3.5,L11,RH,+,-,-,	S.N.A
..2	T0156	AA61-00094C	HOLDER-RAIL;PCJ533R,ABS,-,-,-,BLK,HB,480	S.N.A
..2		AA61-00097A	HOLDER-WIRE;-,NYLON 6/6,-,-,-,NTR,-	S.N.A
..2		BP61-00075A	HOLDER-JERSEY,ASSY;W3,ABS V0,GRAY,63-000	S.N.A
..2	T0519	AA61-00533B	BRACKET-GRILLE;43,54,62J8,SECC-1 ,T0.5,-	S.N.A
..2		AA61-00616B	HOLDER-CRT,MAIN;54J7,DP,-,-,-,-,AA61-005	S.N.A
..2	T0245	AA61-00864A	HOLDER-PCB;W3,HIPS,V0,BLK	S.N.A
..2		AA61-01133A	VELCRO-B;COMMANDO,BST1 1/4H	S.N.A
..2	T0519	AA61-01213A	BRACKET-GRILLE;43T7,SECC,T0.5	S.N.A
..2	T0617	BP64-00185A	CABINET-WOOD;43T8,WOOD,,,,,,J54A	S.N.A
..2		AA65-00017A	CLAMP CORE-WIRE;ALL MODEL,NYLON6.6,BLK	S.N.A
..2		BP61-00019A	HOLDER-PALLET;42W5,HIPS HB,BLK	S.N.A
..2	T0082	3001-001353	SPEAKER;25W,8OHM,90DB+/-3DB,60HZ+/-12HZ	
..2	T0082	3001-001107	SPEAKER;20W,8ohm,95dB,1300Hz	
..2	T0245	AA39-00086A	LEAD CONNECTOR-ASSY;,2.2UF,REC,REC,200MM	
..2		AA98-00049A	ASSY-LEAD,CON;-,LEAD-CON,CORE,AA39-20505	S.N.A
...3	T0121	3301-001201	CORE-FERRITE;AE,21x11x32mm,1500,280G	
..2	T0115	AA61-00617B	BRACKET-CRT,MAIN;DP,54J7,AA61-00475B	S.N.A
..2		6006-001094	SCREW-ASS'Y WOOD;WW,HH,+,M7,L32,ZPC(YE	S.N.A
1	T0092	BP96-00077G	ASSY COVER P-TERMINAL,ANT;DP,42W5,HIPS,V	
1		AA96-20130A	ASSY-POWER,CORD;-,CP2/NO(4.0R),H/C150,KJ	S.N.A
1	M2893	BP39-00048A	LEAD CONNECTOR;P55A/SVP-47W3HRT,UL1617#2	
1	M2893	BP39-00047A	LEAD CONNECTOR;P55A/HCM4215W,UL2547#26,U	
1	T0167	AA39-30007A	IF-CABLE;-,T,100mm,1365#26	
1	T0168	AA39-00006A	CABLE-RCA;-,RCA,3000MM,0.12/10,RED/WHT/Y	
1		AA61-00049B	HOLDER-BOX;-,PP,-,-,-,NTR,V0,AA61-20285A	S.N.A
1		BP61-00300A	HOLDER-MIRROR R ASSY;43T8,HIPS,HB,BLK	S.N.A
1		BP61-00300B	HOLDER-MIRROR L ASSY;43T8,HIPS,HB,BLK	S.N.A
1	T0333	BP64-00017C	CABINET BACK/BOTTOM; 43T7,T8	
1	T0334	BP64-00016B	CABINET BACK/TOP 43T7,T8	
1		AA40-00050A	TUNER;TCLW3101PD18A(S),TCLW3101PD18A(S),	
1		AA40-00051A	TUNER;TCPW3001PC18B(S),TCPW3001PC18B(S),	
1		BP61-00012A	BRACKET-MIRROR;DP,42W5,AA61-01123A,11.8K	S.N.A
1	T0614	AA65-30013A	CLAMP-WIRE;-,NYLON-6	S.N.A
1	T0614	AA65-30018A	CLAMP-WIRE;DONG-A,NYLON-66,-,-,-,DATL-60	S.N.A
1	T0614	AA65-30104C	CLAMP-WIRE;ALL MODEL,NYLON 66,V2,-,NTR,	S.N.A
1		AA65-30008A	CLAMP-CORD;-,PE,HB,-,BLK,-	S.N.A
1		AA65-30105A	CLAMPER CORE-WIRE;ALL MODEL,NYLON 66,V,	S.N.A
1	T0614	AA65-30110A	CLAMP-WIRE;ALL MODEL,NYLON 66,V2,-,BLK,P	S.N.A

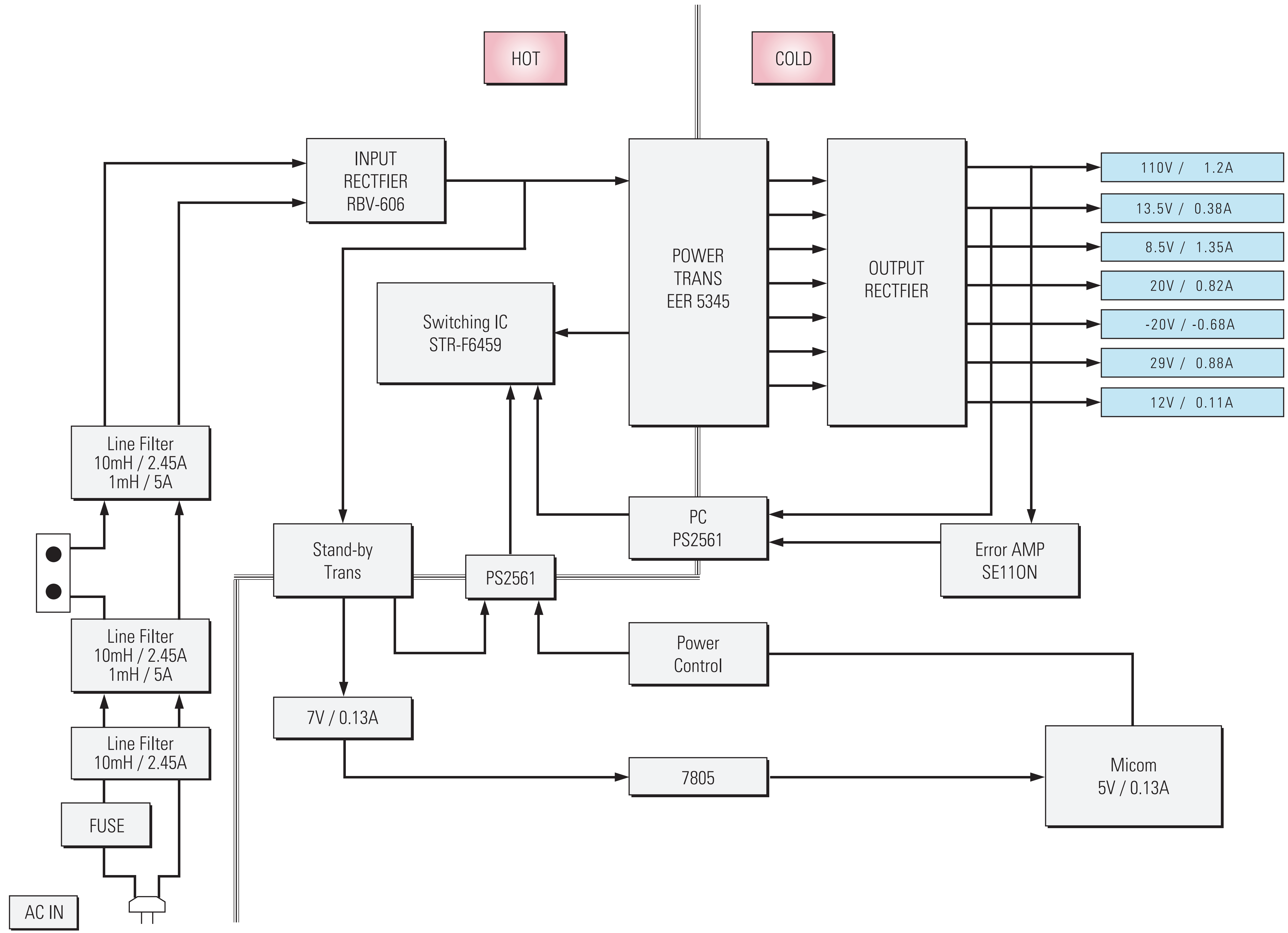
Loc. No.		Code No.	Description ; Specification	Remark
1	T0081	6003-001019	SCREW-TAPTITE;RH,+,B,M4,L12,ZPC(BLK),SWR	
1	T0081	6003-001022	SCREW-TAPTITE;RH,+,B,M3,L12,ZPC(BLK),SWR	S.N.A
1	T0081	6003-001023	SCREW-TAPTITE;RWH,+,B,M3,L10,ZPC(YEL),SW	S.N.A
1	T0081	6003-001026	SCREW-TAPTITE;RH,+,B,M4,L15,ZPC(BLK)	S.N.A
1	HC+CW	6005-001003	SCREW-WOOD;HH,+,M4,L19,ZPC(BLK),SWRCH18	S.N.A
1	HC+CW	6005-001004	SCREW-WOOD;HH,+,M4,L27,BLK,SWRCH18A	S.N.A
1	T0081	6002-000522	SCREW-TAPPING;TH,+,2,M4,L15,ZPC(BLK),SWR	
1	T0081	AA60-10011A	SCREW-TAPTITE;-,SWRCH18A,M4,L12,HH,+,PC,	S.N.A
1		BP64-00044A	INLAY-VENT;43T7,PS SHEET,T0.5	S.N.A
1		AA64-60449B	INLAY-COVER;SP-434JMF,PS,T0.5,149.3X69.5	S.N.A
1	T0108	AA67-00205D	MIRROR-BACK;DP,43T7,SSM,795*569*554*(78)	
1	T0616	BP26-00004A	TRANS FBT;FUW50A002B,PJCPT,31KV,BK,35KV	
1	T0600	AA60-00072C	SPACER-COVER,DUST;43T7,SPONGE 94HF-1,T3.	S.N.A
1	T0069	AA63-60122J	SPACER-FELT;SPD-50P3H,FELT,L530,D20,T0.3	S.N.A
1	T0074	BP59-00008A	REMOCON;,TM65A,COMMOANDO,J54A,49,L/GRAY,	
1	T0751	BP68-00066B	INSTRUCTION BOOK; PJTV GRIEGO C1.5	S.N.A
1		AA68-02415A	CARD-RTF;COLORIT 54 CREMA,MOJO80G,SPA,A	S.N.A
1		AA63-10007B	BAND-PP;W18,CLEA	S.N.A
1		AA63-10002A	BAND-TIE;-,NYLON66 V2,-,-,L100,NTR,-	S.N.A
1		6902-000018	BAG PE; PJTV 42	S.N.A
1	T0521	AA69-00744L	BAG-SHEET;-,HDPE PE FOAM,T0.015,W1650,H1	S.N.A
1	T0121	3301-001201	CORE-FERRITE;AE,21x11x32mm,1500,280G	
1	M0135	BH73-60304C	RUBBER-SUPPORT;DP15LT,CR V0,GRAY,-,14*7*	S.N.A

8. Block Diagram

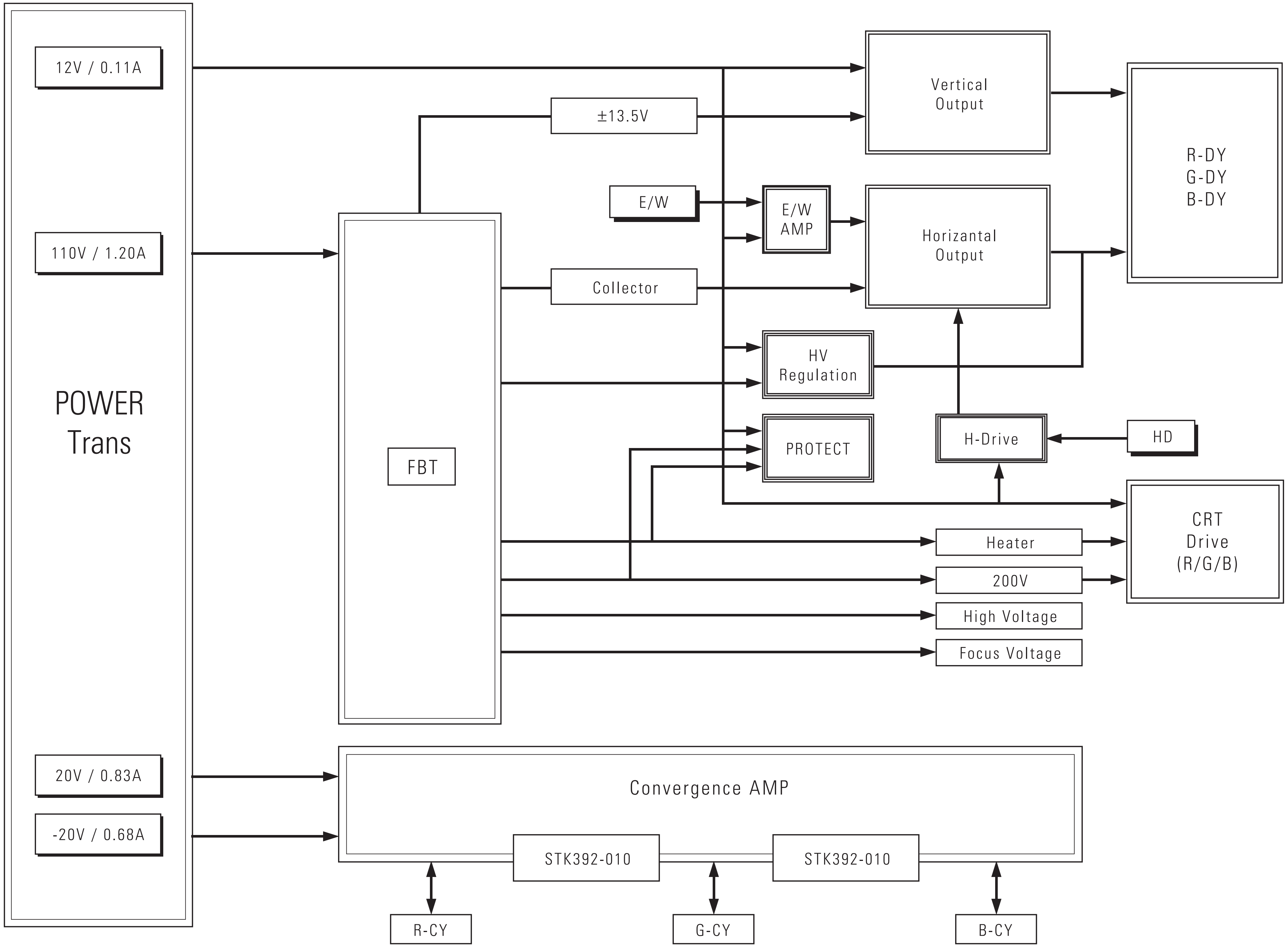
8-1 Current System



8-2 Power Supply System

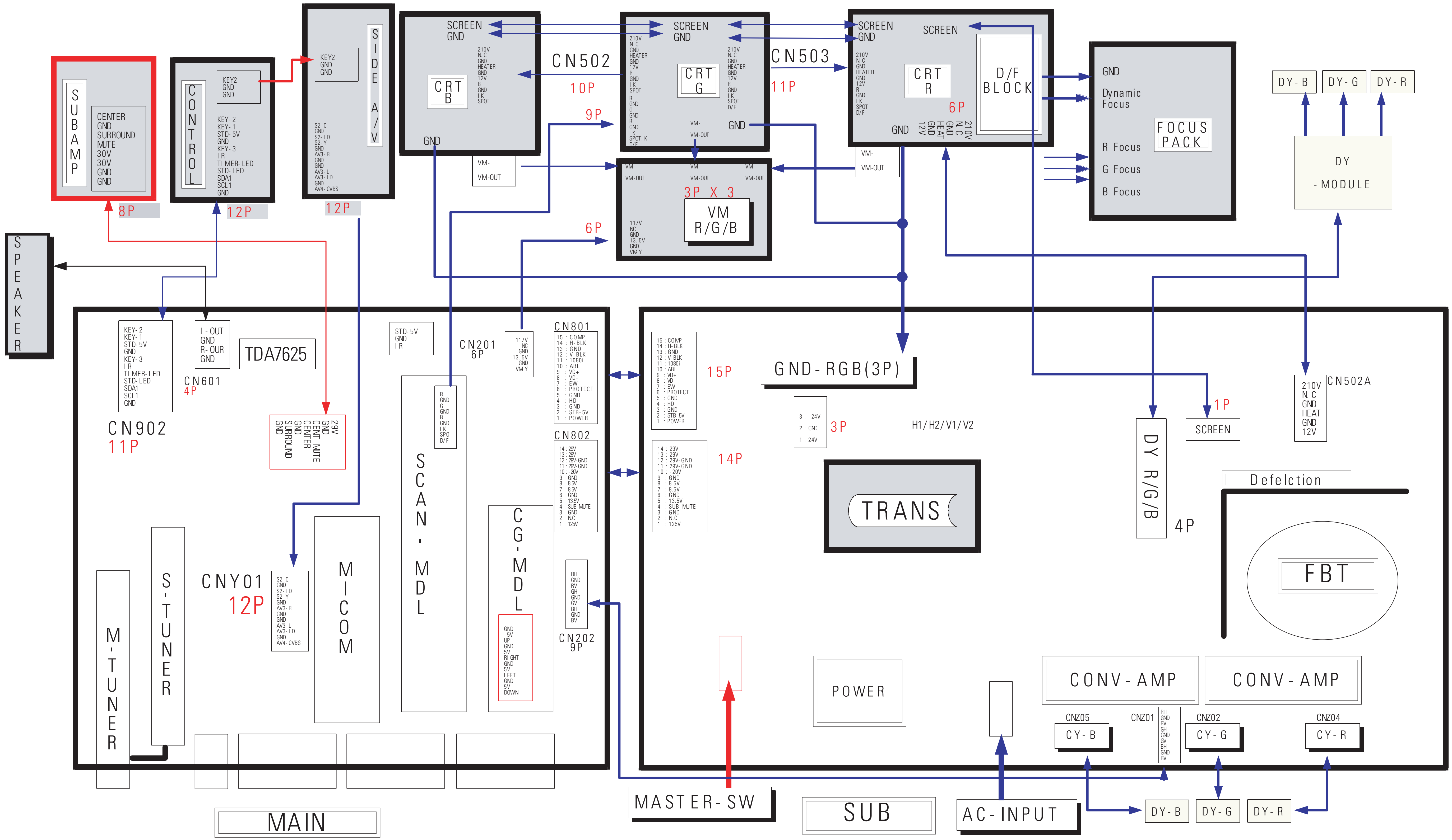


8-3 Deflection System



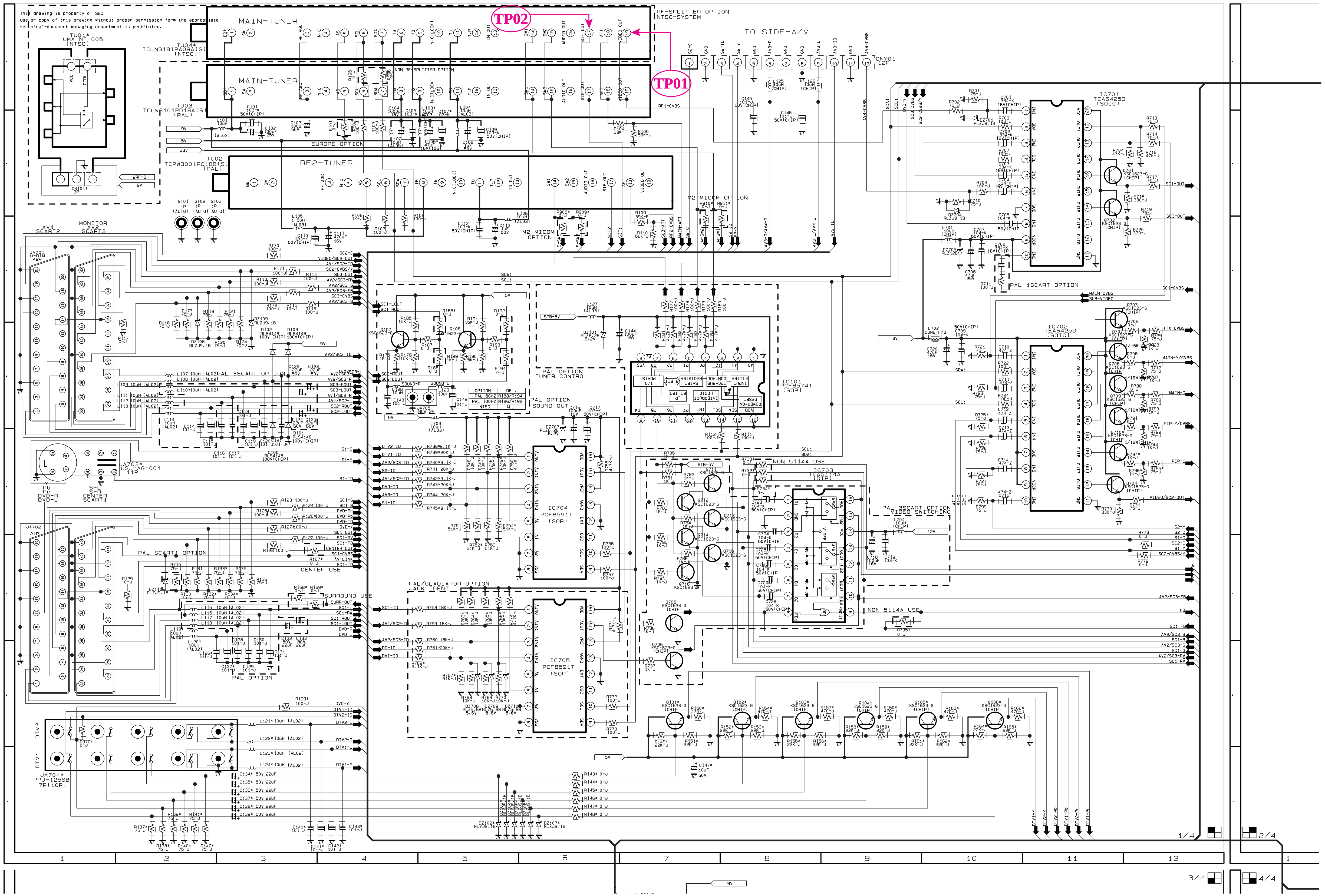
9. Wiring Diagram

9-1 Connection(Progressive)

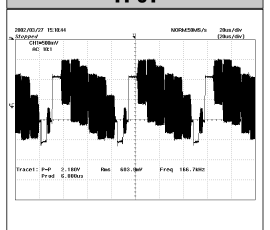


10. Schematic Diagrams

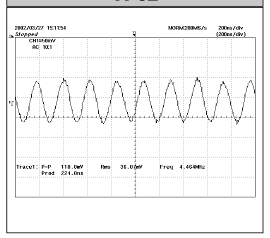
10-1 MAIN 1



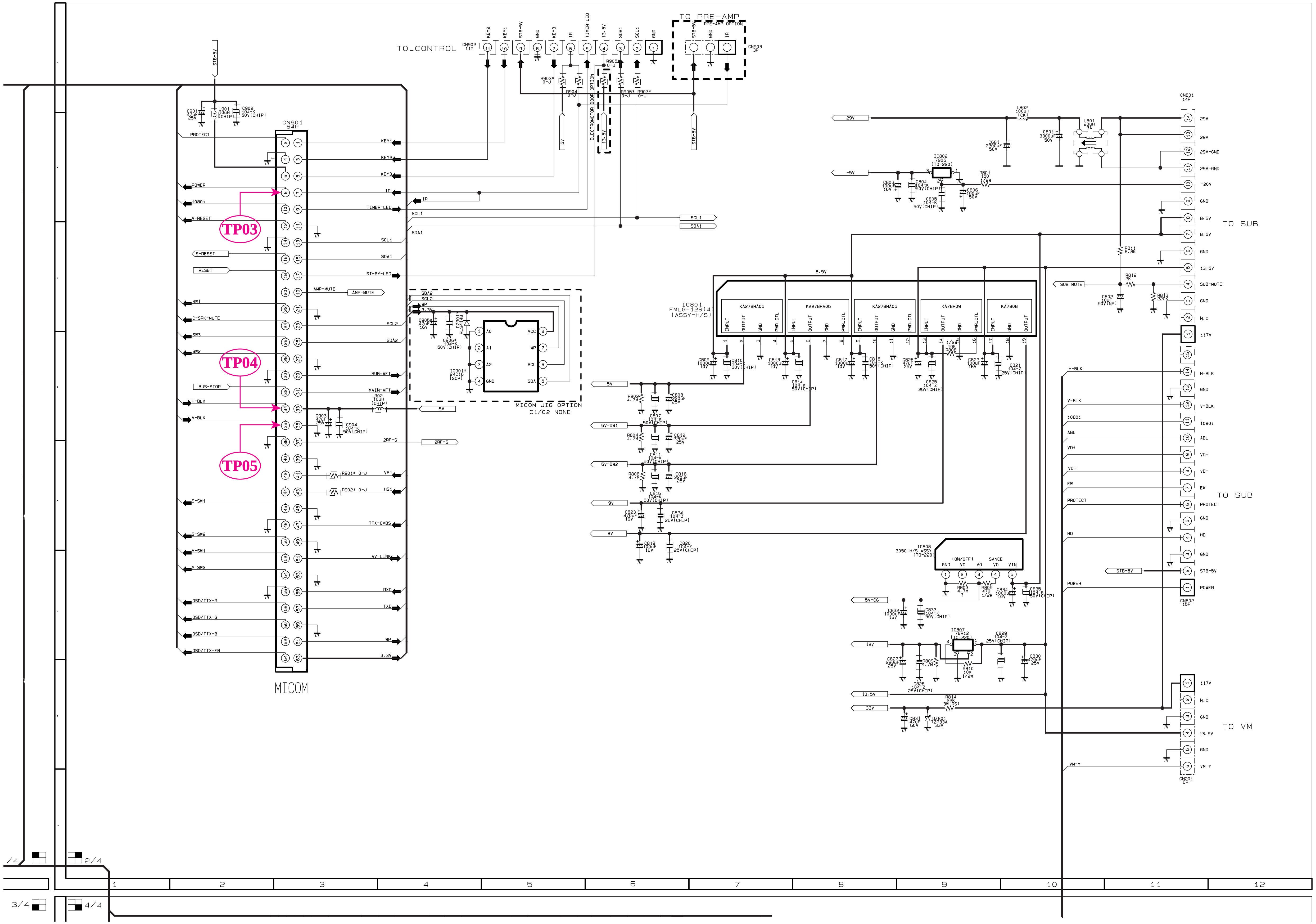
TP01

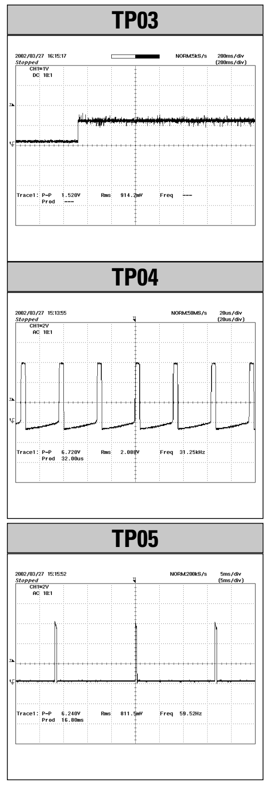


TP02

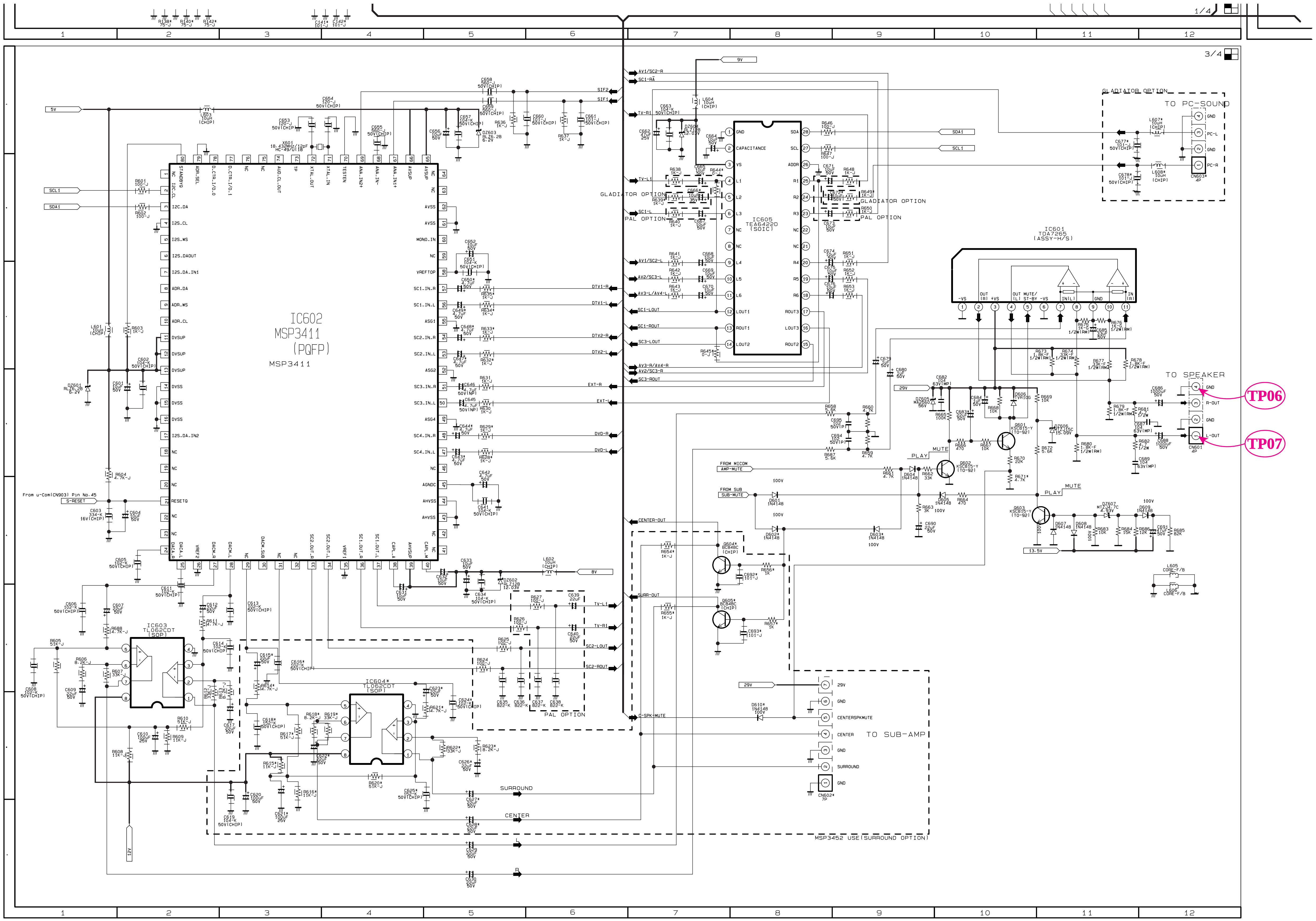


10-2 MAIN 2

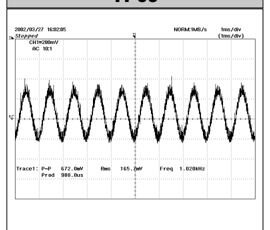




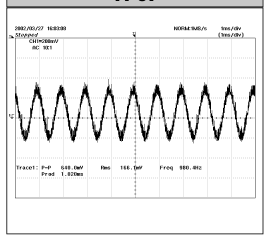
10-3 MAIN 3



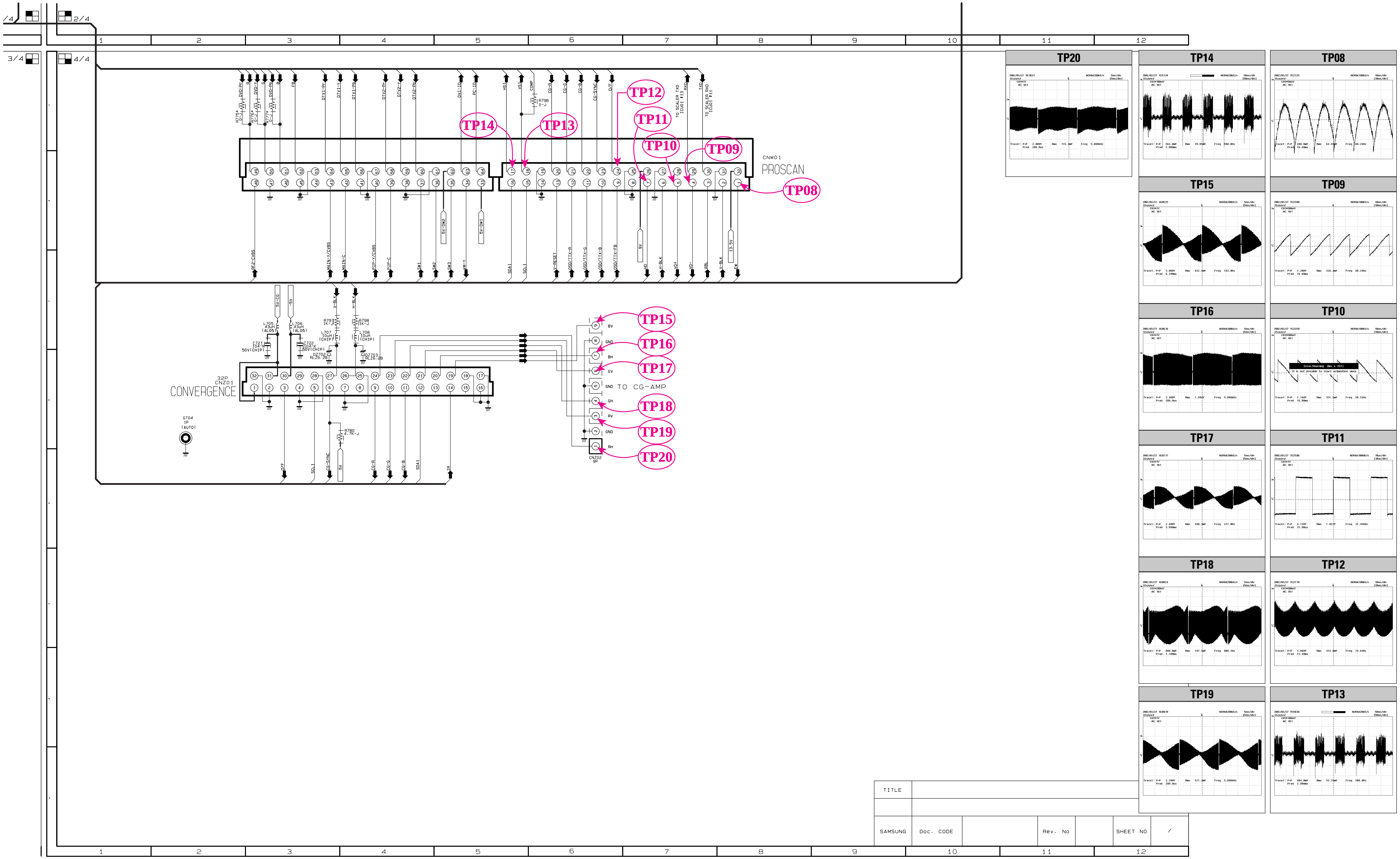
TP06



TP07

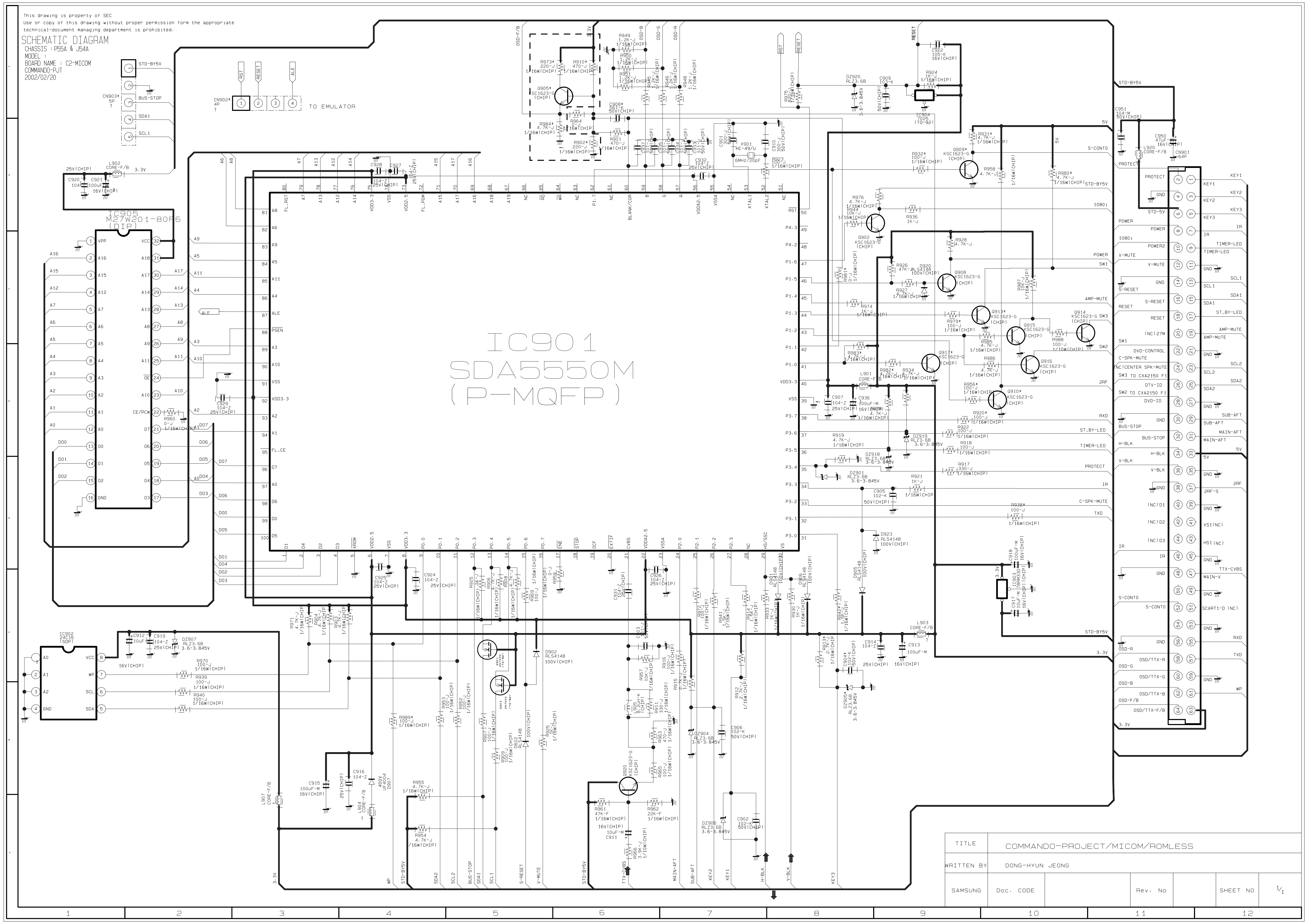


10-4 MAIN 4

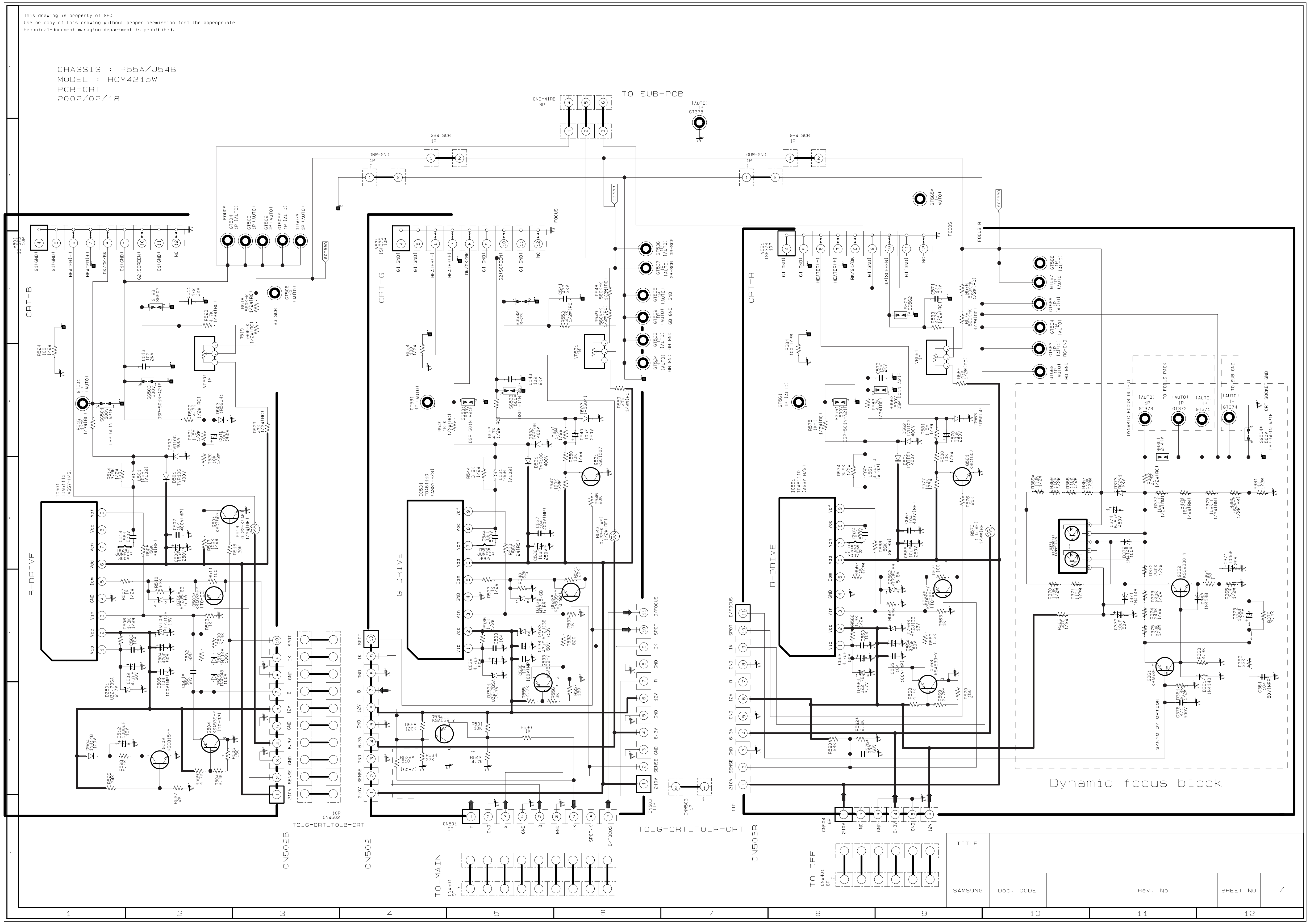


CNW01
PROSCAN
32P CNZ01
CONVERGENCE
TO CG-AMP
TP08
TP09
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TITLE
SAMSUNG
Doc. CODE
Rev. No
SHEET NO

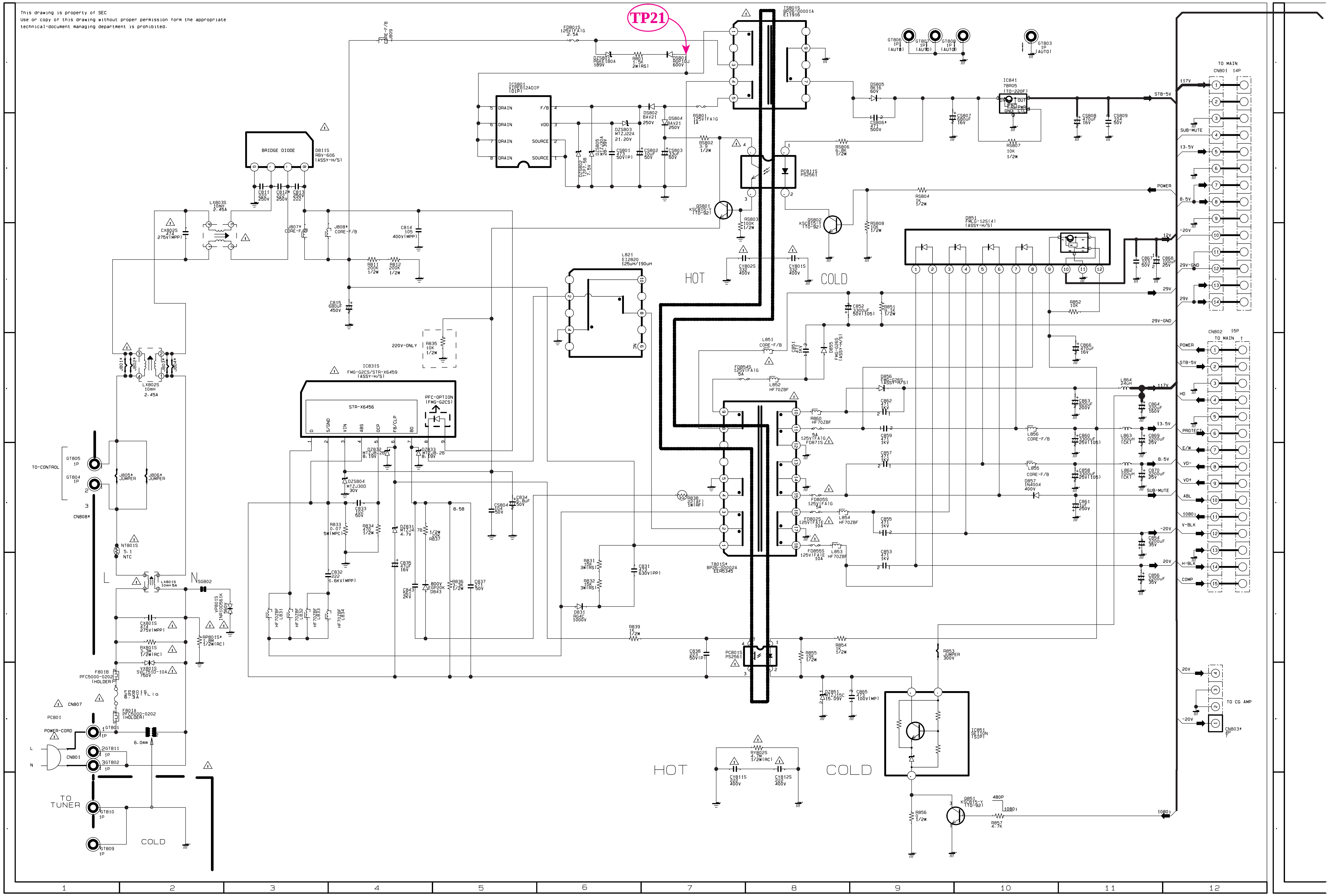
10-5 MICOM


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SCHEMATIC DIAGRAM
CHASSIS : P55A & J54A
BOARD NAME : C2-MICOM
COMMANDO-PJT
2002/02/20
IC901
SDA5550M
(P-MQFP)
IC905
M27W201-80F6
(DIP)
TO EMULATOR
TITLE
COMMANDO-PROJECT/MICOM/ROMLESS
WRITTEN BY
DONG-HYUN JEONG
SAMSUNG
Doc. CODE
Rev. No
SHEET NO

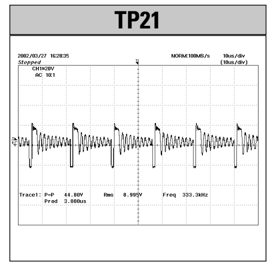
10-6 CRT


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CHASSIS : P55A/J54B
MODEL : HCM4215W
PCB-CRT
2002/02/18
TO SUB-PCB
CRT-B
CRT-G
CRT-R
B-DRIVE
G-DRIVE
R-DRIVE
TO_G-CRT_TO_B-CRT
TO_G-CRT_TO_R-CRT
CN502B
CN502
CN503R
TO_MAIN
TO DEFL
Dynamic focus block
TITLE
SAMSUNG
Doc. CODE
Rev. No
SHEET NO

10-7 SUB 1

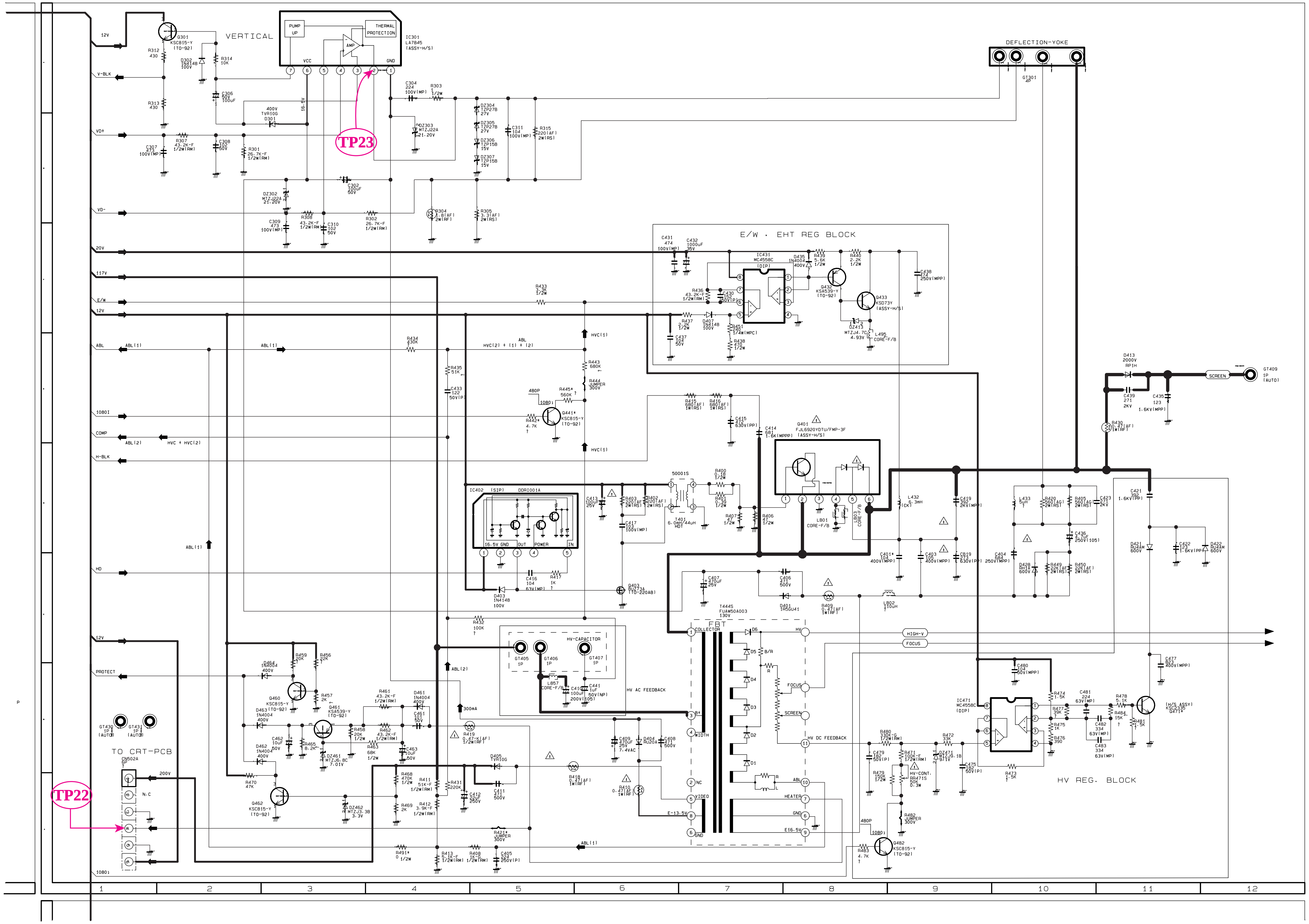


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TP21
BRIDGE DIODE
HOT
COLD
TO MAIN
TO-CONTROL
TO TUNER
TO CG AMP

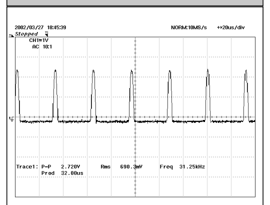


TP21

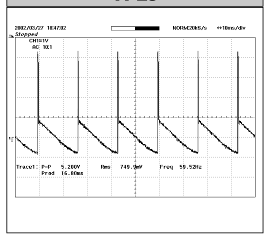
10-8 SUB 2



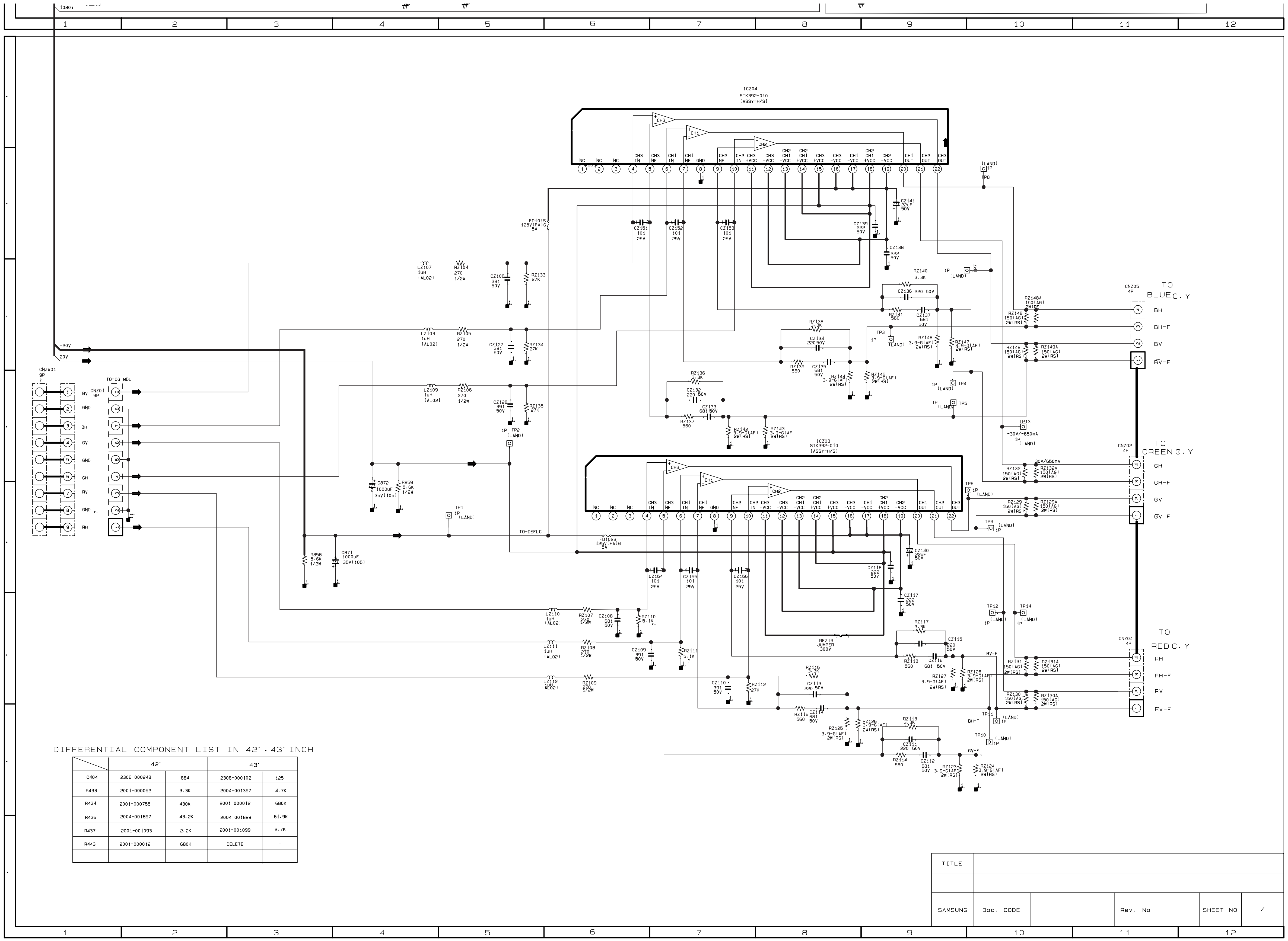
TP22



TP23



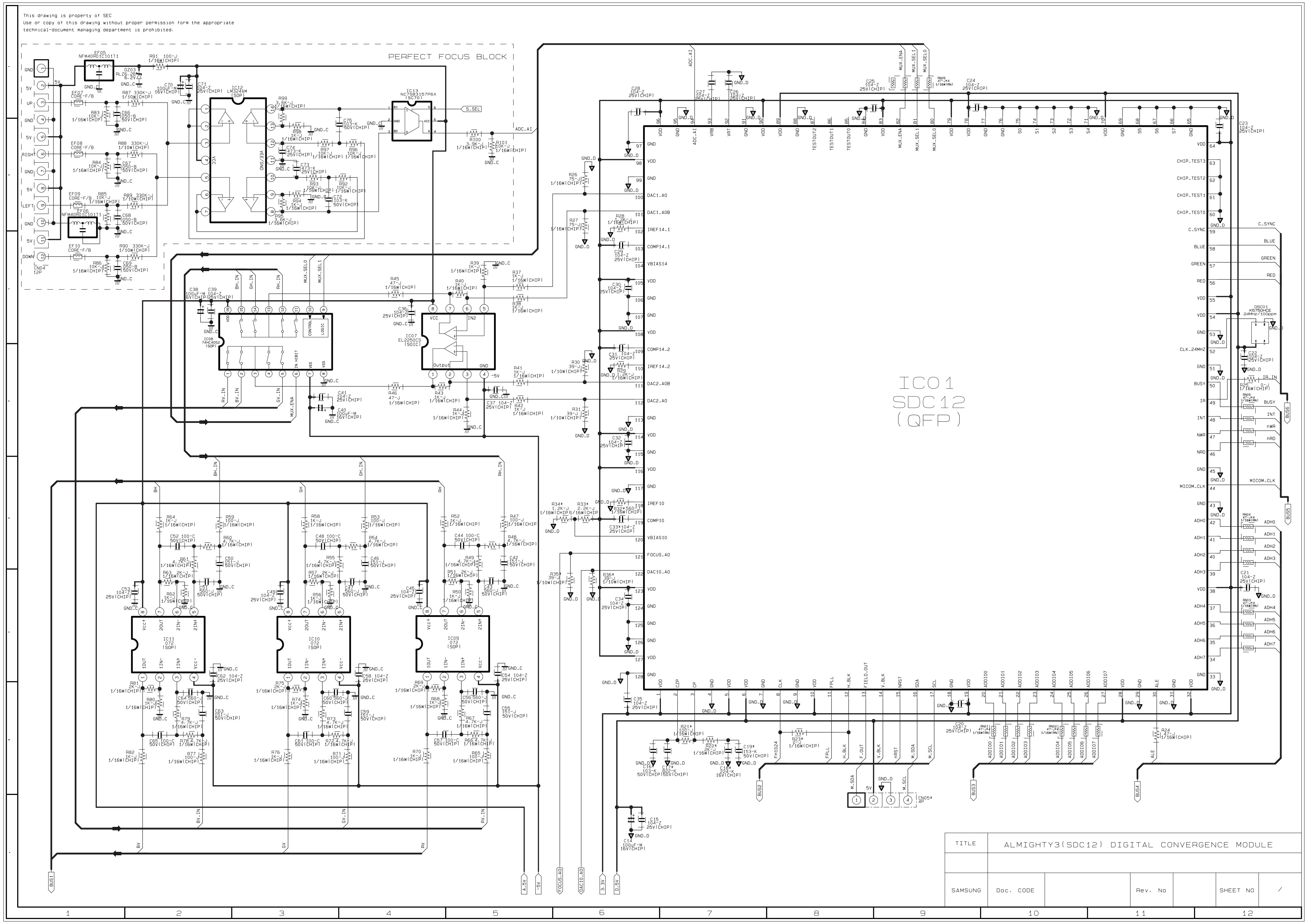
10-9 SUB 3



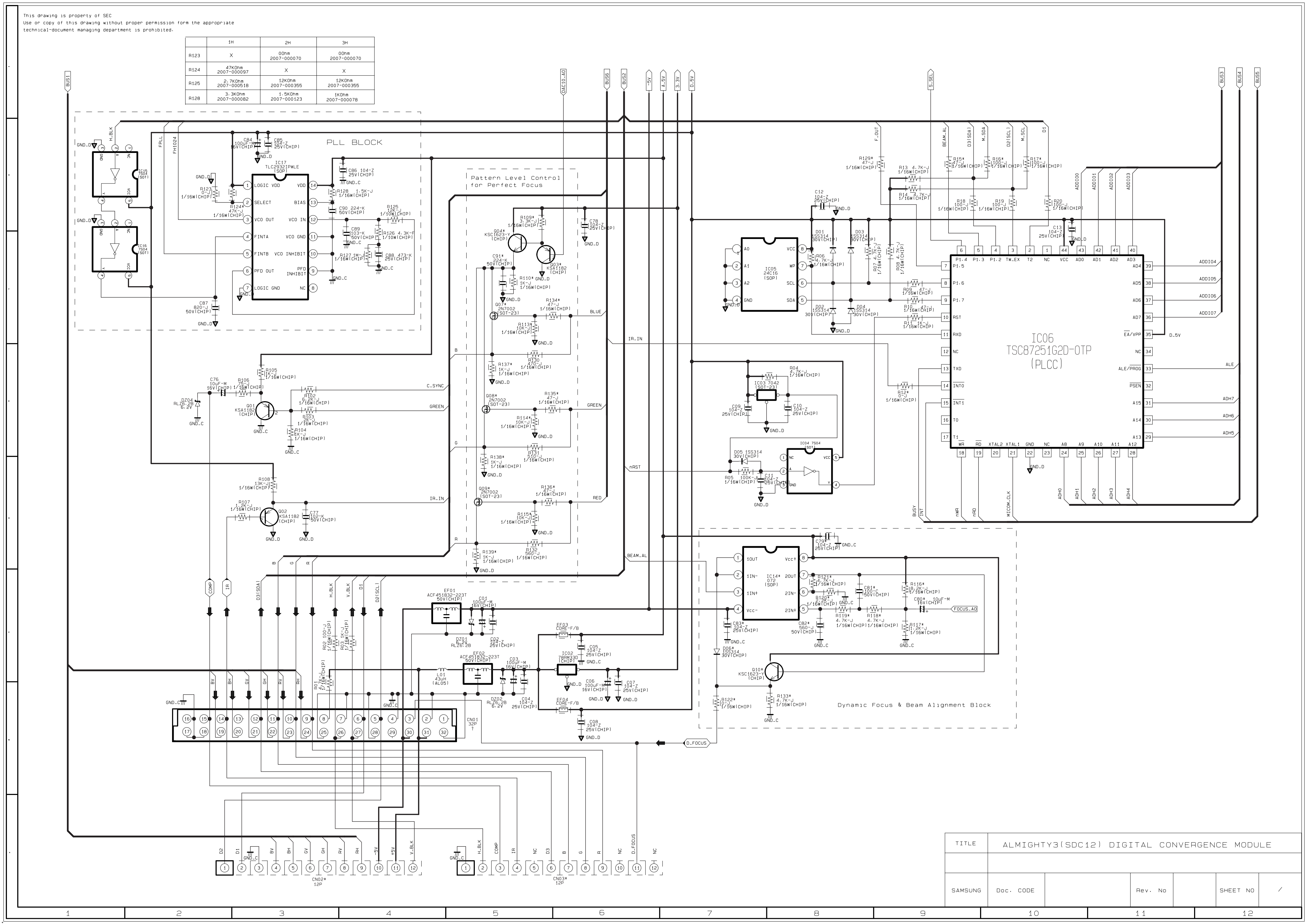
DIFFERENTIAL COMPONENT LIST IN 42', 43' INCH

	42'		43'	
C404	2306-000248	684	2306-000102	125
R433	2001-000052	3.3K	2004-001397	4.7K
R434	2001-000755	430K	2001-000012	680K
R436	2004-001897	43.2K	2004-001899	61.9K
R437	2001-001093	2.2K	2001-001099	2.7K
R443	2001-000012	680K	DELETE	-

10-10 CONVERGENCE (SDC12 - 1)

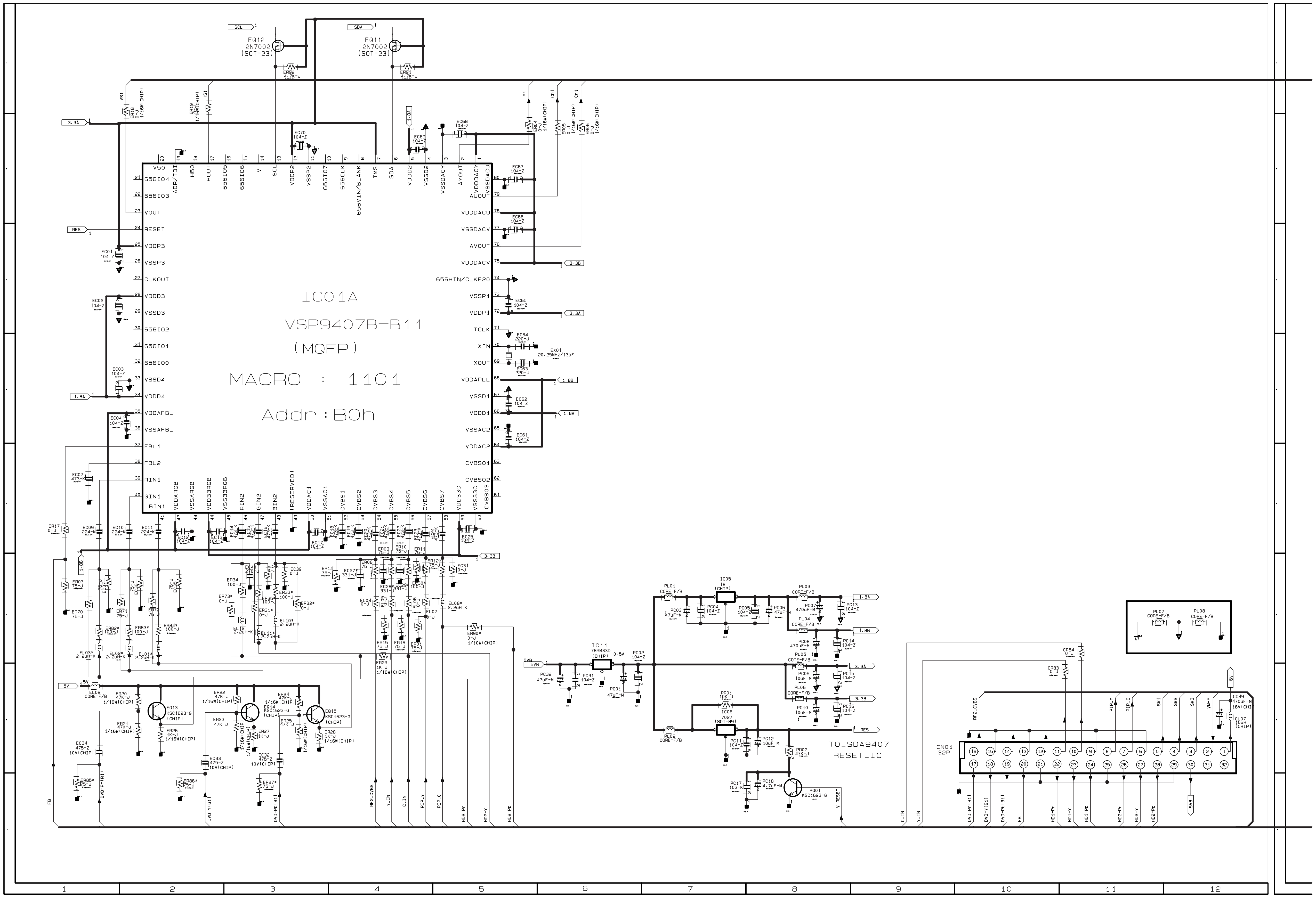


10-11 CONVERGENCE (SDC12 - 2)

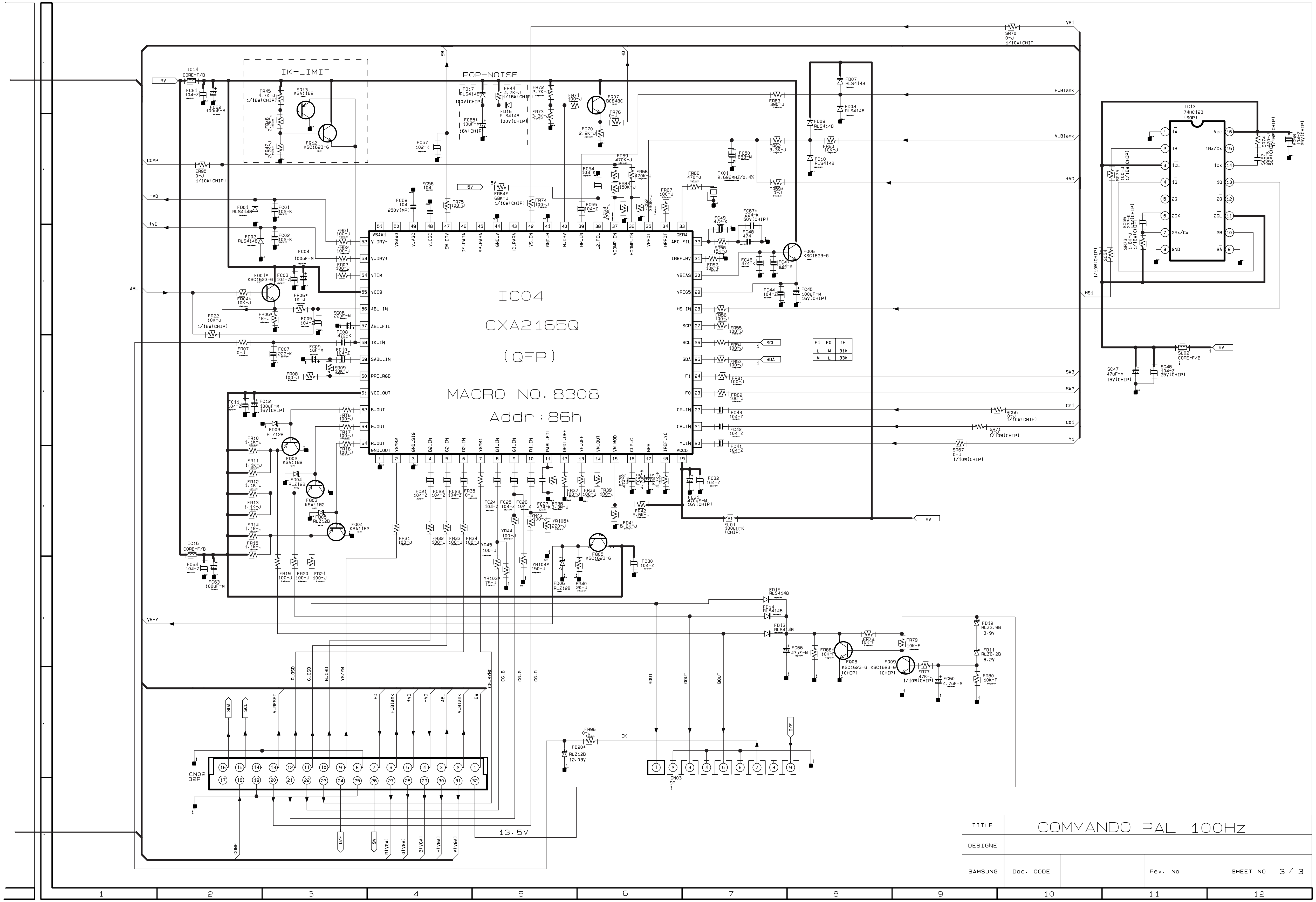


	1H	2H	3H
R123	X	0Ohm 2007-000070	0Ohm 2007-000070
R124	47KOhm 2007-000097	X	X
R125	2.7KOhm 2007-000518	12KOhm 2007-000355	12KOhm 2007-000355
R128	3.3KOhm 2007-000082	1.5KOhm 2007-000123	1KOhm 2007-000078

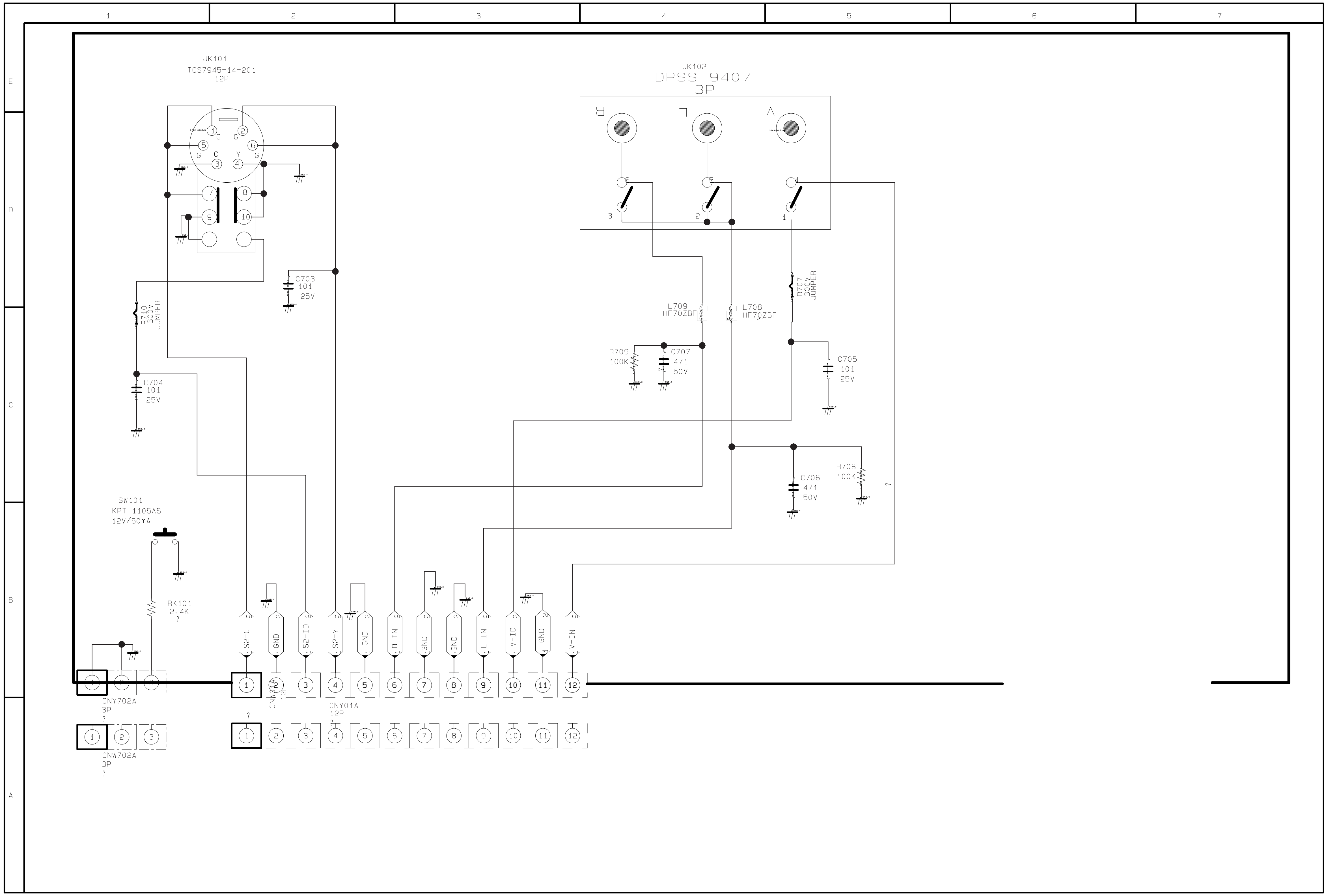
10-12 PRO SCAN 1



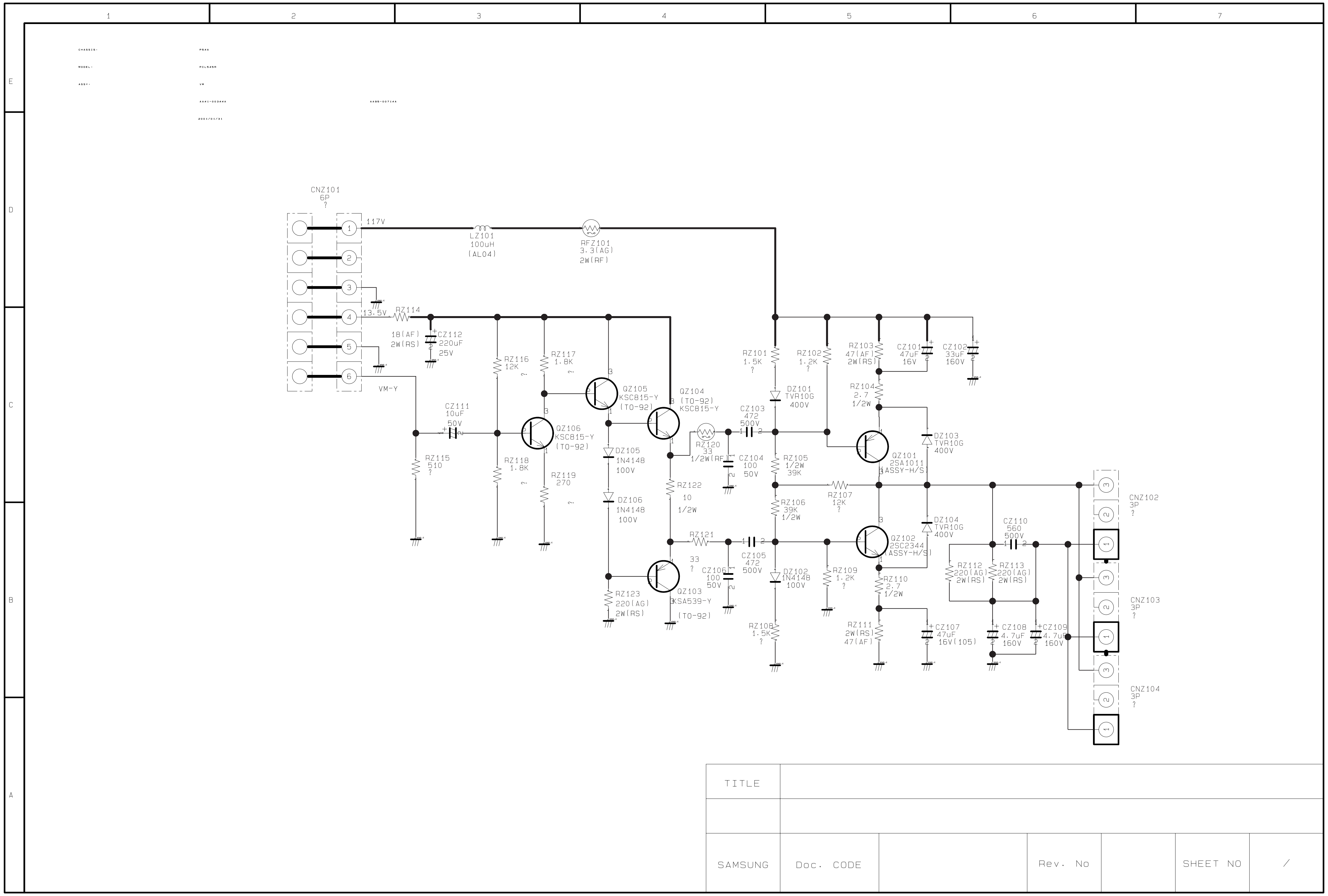
10-13 PRO SCAN 2



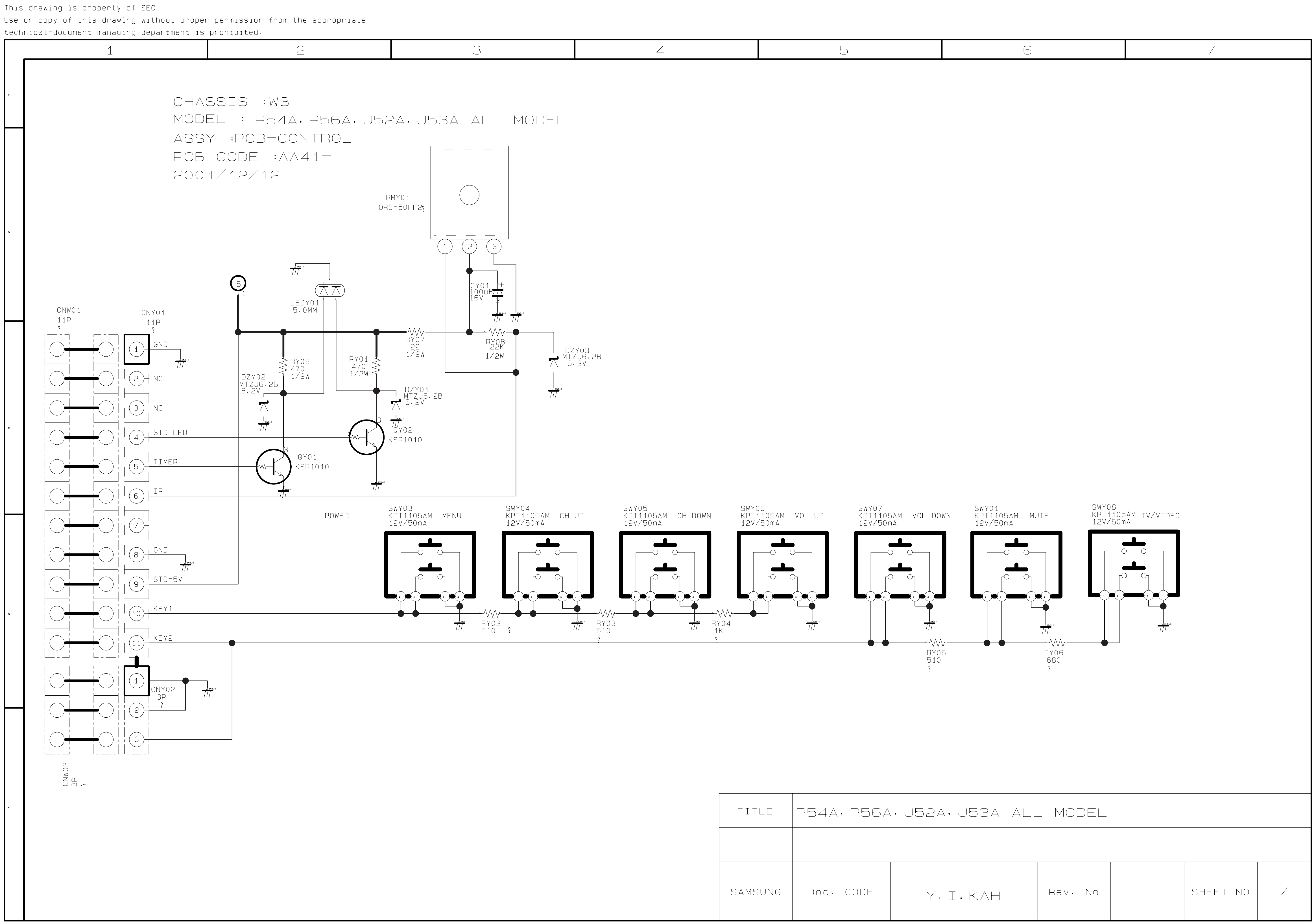
10-14 AV FRONT



10-15 VM

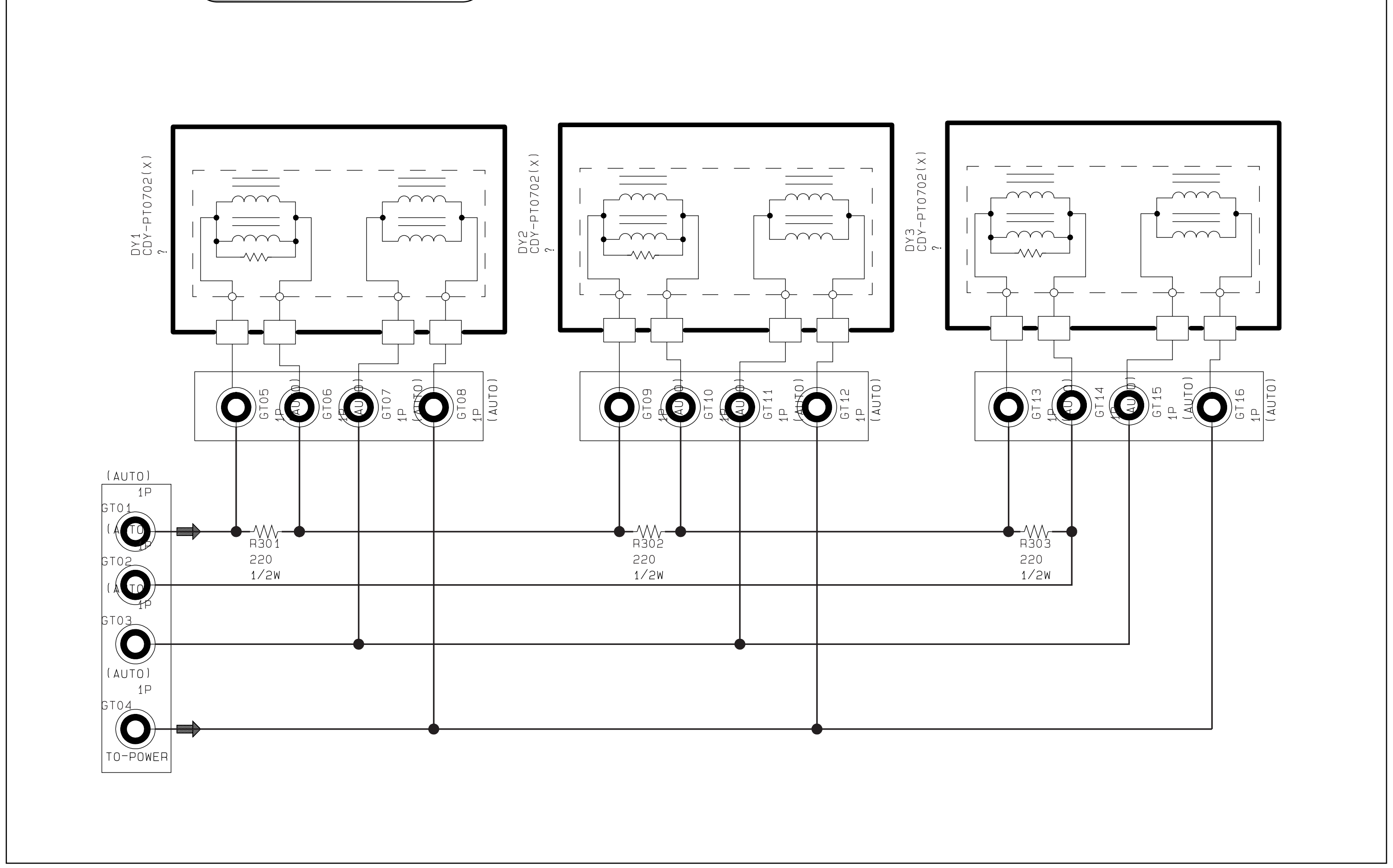


10-16 CONTROL



10-17 DY JACK, SENSOR

DY JACK



SENSOR

